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| **Design Technology Year 8 Curriculum Intent**   |
|  | **Autumn Term** | **Spring Term** | **Summer Term** |
|  | **The 3 areas of Design Technology are taught on a termly rotation**   |
|  | **1** | **2** | **1** | **2** | **1** | **2** |
| Key Concepts  | Technology- 3D CAD City | Engineering- To design and manufacture a sweet dispenser  | Food Technology- Understand and apply the principles of nutrition and learn how to cook |
| Knowledge & Understanding | NC- develop and communicate design ideas using annotated sketches, detailed plans, oral. Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. K&U- This covers the design process as well as some practical graphical skills and the leads onto the skills required in future years at GCSE. It also promotes literacy and numeracy in order to strengthen these skills which may have been neglected during lockdown. CAD Skills are developed. | NC- develop and communicate design ideas using annotated sketches, detailed plans, oral. Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. Students will select from and use specialist tools, techniques, processes, equipment and machinery precisely,K&U- This unit is aimed at giving students an insight into the design and make process. This covers the design process as well as some practical manufacturing skills and the leads onto the skills required in future years. It also promotes literacy and numeracy in order to strengthen these skills which may have been neglected during lockdown. | NC- understand and apply the principles of nutrition and health, students will cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet. Students will become competent in a range of cooking techniques by selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes. They will also understand the source, seasonality and characteristics of a broad range of ingredientsK&U- This unit is aimed at giving insight on how to make a range of different food products and develop a wide range of different food products and develop a wide range of skills that will equip them for life. It also promotes literacy and numeracy in order to strengthen these skills which may have been neglected during lockdown.  |
| Assessment | Students will be assessed throughout through teacher assessment, both verbal and written, peer/self-assessment and an end of unit test.  | Students will be assessed throughout through teacher assessment, both verbal and written, peer/self-assessment and an end of topic assessment on students practical skills.  | Students will be assessed through teacher assessment, bother verbal and written, peer/self-assessment and an end of unit test.Students will be accessed on six dishes they cook. The assessment will incorporate skills learnt to make the dish and theory students have learnt. |
| Why this? Why now? | At Key Stage 2 students again a basic understanding of CAD. This project aims to build on those skills using the program 2D Design. This helps prepare students for NCFE Level ½ Technical Award in Engineering as two of the nine content areas for the exam cover Computer Aided Design. Students also need to produce CAD drawings for their NEA, this is for the product they will be producing.  | In Key stage 2, pupils studied DT. They learnt how to generate, develop, model and communicate their ideas through discussion, annotated sketches. At Key stage 2 students learnt how to investigate and analyse a range of existing products and evaluate their ideas and products against their own design criteria and consider the views of others to improve their work, they will build on this using GCSE terminology of ACCESSFMM. Students will also develop an understanding of how products effect the environment and how we can be sustainable. Sustainability is a major theme in both NCFE Engineering and WJEC Hospitality and Catering. This may be the first time students have used tools and equipment, this project is to start to develop manufacturing skills in the workshop and raise an awareness of health and safety.  | Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life. Cooking is a life long skill. Students will also have the opportunity to cook one sweet dish. |
| Skills & Characteristics | * Gain an understanding of isometric drawing
* Create isometric drawings
* Develop accurate marking and measuring skills
* Gain an understanding of CAD drawing
* Know how to use basic skills in 2D Design
* Understand how to render a design
 | * To complete a detailed analysis of the design brief
* To understand what the 6R’s
* To apply the 6R’s to designs
* To create design ideas
* To understand what a production plan is To understand why we create production plans
* To create a production plan
* To select the correct tools/equipment
* To use tools/equipment safety
* To explain why tools/equipment have been chosen
* To explain how to use tools/equipment safety
* Name tools
* Recall tools used
* Explain how tools are used
* Give advantages of different tools
* To explain the importance of an evaluation
* To complete an evaluation of the project To complete an evaluation of the project and suggest improvements
 | * Understand the importance of good kitchen hygiene and routines
* Describe consequences of not following personal hygiene and kitchen routines
* Learn how to use equipment safely
* Be able to use sensory evaluation to review a dish
* To learn the different foods eaten around the world
* To understand the term ‘multicultural’
* To understand the importance of food safety when making meals
* To understand what food miles are
* To learn about the impact of food on the environment
* To identify countries Britain get their food from
* Understand which factors affect the food choices people make
* Understand the nutritional needs of teenagers
* Be able to identify which foods would be most suitable for a teenager’s diet
* Learn about examples of dietary needs
* Learn how to be able to substitute ingredients in a recipe to lower fat
* Understand methods of healthier cooking
* Be able to identify which foods belong to the different sections of the Eatwell guide
* To understand how to plan a healthy packed lunch
* To be explain the importance of nutrients in the body
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| Aspirations & Careers | We have many company links at Southmoor- Seta, Nissan, Komatsu, Vantec and Unipress. Jobs students may go into are: Tradesman: Electrician, Plumer, Joiner, Builder. Engineer: Materials, Civil, Automotive, Design, Chemical, Clinical, Games Designer, Graphic Designer, Product Designer, Construction Manager CAD Technician, Secondary School Teacher, Data Analysis | We have many company links at Southmoor- Seta, Nissan, Komatsu, Vantec and Unipress. Jobs students may go into are: Tradesman: Electrician, Plumer, Joiner, Builder. Engineer: Materials, Civil, Automotive, Design, Chemical, Clinical, Games Designer, Graphic Designer, Product Designer, Construction Manager CAD Technician, Secondary School Teacher, Data Analysis | Industrial baker, baking operative, artisan baker, craft baker, Bartender, Barista, Butcher, Butler, Cake decorator, Catering manager, Food service manager, Cellar technician, dispense technician, cellar service engineer, beer quality technician, Chef, Cook, Crew member, fast-food service assistant, food and beverage server, Fishmonger, Food factory worker, Food manufacturing inspector, Food scientist, Waiter, Waitress, waiting staff, server, Waiters serve food and drinks to customers in restaurants and cafes, take orders and handle payments. |

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|  | **Basic****(Lower Ability End Points)** | **Clear** **(Middle Ability End Points)** | **Detailed** **(Higher Ability End Points)** |
| Y8 Technology  | * Use CAD to draw 2D and 3D shapes and apply colour/texture
* Use CAD to draw a range of basic shapes/products showing a range of skills/techniques
 | * Use CAD to design realistic solutions showing a range of skills
* Use CAD to design realistic and creative solutions showing a range of skills/techniques
 | * Use CAD to design realistic and creative solutions showing a range of skills
* Use CAD to independently design realistic and creative solutions showing a range of skills/techniques
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| Y8 Food Technology  | * Students identify the source, seasonality and characteristics of a broad range of ingredients.
* Recall and apply the principles of The Eatwell Guide and the 8 tips for healthy eating to their own diet
* Demonstrate a range of food preparation and cooking techniques
* Plan, prepare, cook and analyse dishes made with some guidance
* You chose and used the equipment for the recipe. You followed the most obvious health & safety rules. You needed a lot of help to complete outcomes.
 | * Students understand the source, seasonality and characteristics of a broad range of ingredients.
* Name the main nutrients, sources and functions and apply the principles of The Eatwell Guide to a range of different diets.
* Demonstrate and apply their knowledge and understanding of food preparation and cooking techniques
* Plan, prepare, cook and analyse dishes made with little guidance
* You chose and used the equipment for the recipe fairly accurately. You followed health & safety rules. Your teacher helped you a few times. You had success with the skills listed in foundation level.
 | * Students explain the source, seasonality and characteristics of a broad range of ingredients.
* Evaluate the importance of individual nutrients in a healthy balanced diet and their functions.
* Demonstrate a range of food preparation and cooking techniques and independently apply the principles of food safety and hygiene
* Plan, prepare, cook and analyse dishes made independently
* You worked with sharp equipment and relevant parts of the cooker accurately and with precision. You followed health & safety rules. Your teacher rarely needed to help. Either you made no mistakes or you could correct your own. You had good success with the skills listed in foundation level.
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| Y8 Engineering  | * Simple designs
* You used the equipment and attempted your practical activity when marking out, Shaping, drilling, cutting, finishing and assembly
* Give your work marks out of 10. Link up the crosses with a ruler.
 | * Good quality designs
* You used tools and equipment fairly accurately
* Explain what you like and dislike about your work.
 | * High quality designs with attention to detail. Research is helpful
* You used tools accurately and with precision and could correct your mistakes
* Explain how you could further improve the design or your finished outcome. HIGH QUALITY
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