

**PURPOSE OF STUDY**

Design and Technology at Mark Rutherford School aims to inspire and motivate students through a rigorous and stimulating curriculum, students develop their skills and understanding through a wide range of experiences via a rotation, using different materials including food, looking at variety of different contexts throughout the key stage.

During Year 7 students develop an appreciation of health and safety and the requirements of working safely in a workshop environment. Students become increasingly confident in the use of larger equipment they will have not previously been exposed to in KS1 and 2. As well as designing products to help solve real problems and contexts, students use a wide range of materials throughout the year developing their understanding of their properties and working characteristics.

In Food and Nutrition, students understand and apply the principles of nutrition and health. They cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet. Students become competent in a range of cooking techniques [for example, 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] understand the source, seasonality and characteristics of a broad range of ingredients.

| Rotation 1 DT  | Rotation 2 DT   | Rotation 1 FOOD  |   | Rotation 2 FOOD   |  |
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| <b>Health &amp; Safety / Wind chime</b>  | <b>Health &amp; Safety/ Jewellery</b>   | <b>Food &amp; Nutrition</b>  |   | <b>Food &amp; Nutrition</b>   |  |
| Introduction to Health & Safety, workshop rules and contract.<br>Design: Use specifications and working drawings to guide design ideas<br>Make: Select and use specialist tools – Hacksaws, files, coping saws, abra-files, rules, centre punch, engineers’ vice<br>Project looks at familiarising students with tools and equipment not used at primary school.<br>Pillar drill- Clamping, drilling jigs. | <a href="#">Introduction to Health &amp; Safety, workshop rules and contract.</a><br>Design: Research and study different cultures, <a href="#">designers and design movements with a focus on finding design inspiration from the natural world.</a><br>Communicate ideas using a range of initial sketches followed by more detailed annotated drawings.<br><a href="#">Drawing skills will include accuracy, correct use of equipment and orthographic projection.</a><br>Identify user needs, <a href="#">considering safety, comfort and preference.</a> | 1 <sup>st</sup> half term<br>Introduction to hygiene and safety. Expectations and hazards.<br>Practical skills<br>Healthy Eating- the Eatwell guide and the government 8 healthy eating recommendations.<br>Commodities- Fruit and vegetables. | 2 <sup>nd</sup> half term<br>Cereals- primary processing oats and rice.<br>Seasonal Foods- British cookery<br>Designing a healthy cereal bar- application of healthy eating knowledge.<br>Food provenance – where food comes from. Origins of food. | 1 <sup>st</sup> half term<br>Key terms – Health and safety recap.<br>Nutrition – Fibre and water<br>Food science – Yeast experiment -<br>Biological<br>Dairy – Yogurt tasting<br>Evaluation types | 2 <sup>nd</sup> half term<br>Food styling<br>Religion and food<br>Poultry project research<br>Allergens – Coeliacs. Lactose. Nut allergies |

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| <p>Metal lathe (with supervision)<br/> Accuracy of marking out.<br/> Properties of wood metal and plastics.<br/> Evaluation: against a specification, taking into account the views of others.</p> | <p>Develop Specifications ensuring accuracy of their jewellery outcome.<br/> Understanding the purpose of a design brief.<br/> Make: Select from specialist tools - coping saw, needle files, jewellers peg, pillar drill<br/> Project looks at familiarising students with tools and equipment not used at primary school, making cross curricular links and fostering a connection to industry.<br/> Properties of manufactured and natural wood</p> <p>Evaluate: Against a specification, taking into account the views of others.</p> <p>Technical knowledge: use of jewellery specific tools, development of subject specific vocabulary and an understanding of production scale.</p> |  |  |  |  |
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