



Subject: Design Technology

Year Group	Year 8			
Rationale:	The year 8 Design Technology curriculum is designed to develop the resilience and independent learning abilities of our pupils as well as building on prior KS3 knowledge. It continues to provide them with an enhanced knowledge of the different specialist areas of Design Technology including; Food, Graphics, Textiles and Product Design. The curriculum is designed to build pupils' confidence in how to work through the design and make process, using a wide variety of materials, tools, techniques and equipment.			
	Pupils will rotate around 5 different material areas in Technology over the course of the year. Each project will be taught over 8 weeks (12 hours).			
Topic/Project	TEXTILES 'Phone cushion'	CAD/CAM 'Randoms'	PRODUCT DESIGN 'Bio Light'	FOOD 'Snack Pot'
Knowledge	During this project, pupils will develop their knowledge of how to use a theme to create a mobile phone cushion, for a chosen client. They will develop their knowledge on creating patterns and the process of sublimation printing. Through a range of hand and machine-based techniques, they will learn how to assemble a part accurately to create a successful outcome	During this project, pupils will develop their knowledge of 2D Design and CAM machinery. They will develop ideas to suit a client. They will learn about the importance of combining CAM and workshop equipment to produce a successful final outcome.	During this project, pupils will develop their knowledge and understanding of health and safety when working in the workshop. They will develop skills in generating initial and developed ideas using 3D drawing techniques. They will learn about electronic and how electronic components are combined to make working circuits.	During this project, pupils will develop their knowledge and understanding of health and safety in the kitchen. They will develop and build on skills from previous projects to include more process processes such as frying and baking. They will develop knowledge on healthy eating and how they could adapt their diet to be healthier.
Skills	<p>Design investigation skills Pupils will use a theme to develop designs for both a printed and appliques side to their phone cushion. They will focus research on a chosen client.</p> <p>Practical skills Pupils will learn how to use the sewing machine safely and accurately to construct the outer parts of their cushion. They will develop their accuracy of hand stitching using the applique method and combine it with sublimation printing to create their surface decoration.</p>	<p>Design investigation skills Pupils will learn how design considering the wants and needs of a client. They will use client research to influence and inspire their chocolate designs. They will learn how to develop these ideas in CAD in order to create a card former by layering card.</p> <p>Practical skills Pupils will learn how to use the laser cutter and set it up safely. Pupils will learn the importance of accuracy when making jigs and formers. Pupils will learn how to use the vacuum former in order to make a plastic mould to make their chocolate product in.</p>	<p>Design investigation skills: Pupils will learn how to use their research on biomimicry, materials and electronic components to develop a mini light design. They will learn the importance of using a range of research to aid design.</p> <p>Practical skills They will develop skills in the workshop using traditional workshop tools and CAD/CAM to create the light casing. They will again electronics based skills as the work with a circuit components to form the light. They will learn how to combine a range of materials and components successfully to create a working light.</p>	<p>Design investigation skills: Pupils will learn how eating premade, processed food can impact on their health. They will learn how items that they buy can easily be made from fresh ingredients to reduce intake of things such as salt, sugar and additives.</p> <p>Practical skills Pupils will develop a wider range of practical skills by completing a range of focused practical food tasks. They will gain more independence when using key kitchen equipment such as the oven and hob and Pupils will understand how to select and prepare a number of ingredients and combine process in order to make more complex food outcomes. A large emphasis will be placed on food hygiene standards and safety</p>



<p>Assess-ments</p>	<p>Pupils will be assessed at the end of every project. Each pupil will be assessed on the Research, Design, Make and Evaluation strands and an average for each project will contribute to the overall pathway. This will be compared to their target pathway to monitor pupil progress.</p>			
	<p>Research: Pupils will research into a theme and client. They will be assessed on the analysis of their research in relation to its suitability for both the mobile phone cushion and client.</p> <p>Design: Pupils will be assessed on their initial design ideas through their Photoshop design and initial sketches. Assessment will focus on creativity, quality of ideas/ annotation and presentation techniques.</p> <p>Make: Pupils will construct their phone cushion using both hand stitching, sublimation printing and the sewing machine. They will be assessed on their independence, safety and accuracy.</p> <p>Evaluation: Pupils will be assessed on their ability to test and evaluate their mobile phone cushion using client feedback to help them suggest improvements.</p>	<p>Research: Pupils will conduct research and analysis around a client. They will be assessed on the quality of communication and the information presented.</p> <p>Design: Pupils will be assessed on both the hand sketches produced and the challenge of the design on 2D Design. Assessment will be focused on the accurate transfer of the design onto 2D design and generation of parts.</p> <p>Make: Pupils will be assessed on the understanding of how to use the laser cutter and vacuum former safely and the quality of their finished product.</p> <p>Evaluation: Pupils will be assessed on the evaluation of their final chocolate. They will be assessed on their use of technical vocabulary and their ability to suggest modifications.</p>	<p>Research: Pupils will be assessed on the analysis of a range of research tasks based around biomimicry and electronic components.</p> <p>Design: Pupils will generate a range of ideas drawing upon their research and using a range of drawing techniques. The assessment will focus on the accuracy and creativity of their technical drawings as well as the presentation and annotation of the ideas.</p> <p>Make: Pupils will produce a light that uses a range of materials to encase an electronic circuit. The assessment will focus on the ability to independently, safely and accurately use a range of workshop equipment to create a fully working product.</p> <p>Evaluation: Pupils will be assessed on the testing and evaluation of their final light. They will be assessed on their use of technical vocabulary and their ability to suggest modifications.</p>	<p>Research: Pupil will be assessed on the quality of analysis completed on a range of research tasks based on nutrition and ingredients.</p> <p>Design: Pupils will be asked to adapt and design recipes based around their gained knowledge and skills.</p> <p>Make: Pupils will be assessed over a range of different practical cooking activities. The assessment will focus on the child's ability to independently, safely and accurately use a range of kitchen equipment whilst maintaining high levels of food hygiene.</p> <p>Evaluation: Pupils will be assessed on the evaluation of their final food products. They will be assessed on their use of technical vocabulary and ability to recognise areas of strength and areas for improvement in both the final outcome and their skill level.</p>