

	Y7 'INTRODUCTION PROJECT' (FIRST HALF TERM)	MECHANISMS PROJECT	CAD / CAM 'MAZE GAME' PROJECT	FOOD PROJECT – HEALTHY EATING
YEAR 7	<p><i>Skill-building 'initial project' for the first half-term prior to set changes in October.</i></p> <p>Students will complete a baseline assessment as well as a series of lessons covering some of the key skills required in Design & Technology, including analysis, mind-mapping, drawing and practical skills.</p> <p>As well as providing an opportunity to gauge student's baseline ability in Design and Technology, this initial project helps enable students to develop their D&T skills regardless of prior learning and starting points. Intentions of the project are to build analysis, practical and drawing skills through completion of several differentiated tasks which provided a good level of challenge to all students.</p>	<p>In 'Materials Technology', students will learn about several mechanisms, both through theory and practical based tasks, culminating in the design and manufacture of a mechanical 'CAM toy'; through doing so, they will also learn about timber manufacture and mechanical systems.</p> <p>Through completing this project, students will learn about several different mechanisms including:</p> <ul style="list-style-type: none"> • CAMs • Geared systems • Pulleys • Levers / linkages <p>Students will develop a better understanding of how these systems work and how they can incorporate some of them into their own designs.</p>	<p>Students will complete a 'CAD / CAM' focused project where the focus is to design and manufacture a laser cut 'maze game' product. Here, students will:</p> <ul style="list-style-type: none"> • Develop practical and theory knowledge of CAD/CAM by working on computer-based design (CAD) activities and exercises, leading to the manufacture of a handheld game using the CAM facilities within the department. • Develop graphic design skills through developing a packaging design for their manufactured product. • In both the 'mechanisms' and 'maze game' projects, students develop their own design solutions and manufacture a prototype product using different skills, tools, and equipment. 	<p>Students will have several sessions in the food room and will work on a mixture of practical and theory session based around the theme of 'Healthy Eating' throughout the project. The practical sessions include preparation of dishes including vegetable curry, pasta salad and a healthy crumble. Students learn about Health and Safety in the food preparation environment, nutrition, and other food-related issues such as sustainability and food packaging information.</p> <p>Through a mixture of practical and theory-based sessions, students will:</p> <ul style="list-style-type: none"> • understanding and applying the principles of nutrition and health • cook a repertoire of predominantly savoury dishes so that they can feed themselves and others a healthy and varied diet.