

## KS3 Curriculum Overview

	Catering	Resistant Materials/Engineering	Textiles and Design
<b>Projects Year 7</b>	<b>Health, Safety and Hygiene</b>	<b>Wood - Bird Tray</b>	<b>CAD Design</b>
	Year 7 catering focuses on health and safety and hygiene. Students learn how to keep the kitchen environment and themselves safe. They develop knife skills through a series of practical tasks and experience the use of the oven. They explore the topic of food origins and different food types.	In this project students are introduced to wood as a material for manufacturing. They learn about the different types of wood and its properties. They undertake a number of practical tasks to make a 'bird feeder tray' using two different construction joints. They learn how to use a range of workshop tools and machinery. There is a particular emphasis on health and safety and accuracy.	In this project students design and manufacture a 'chocolate mould'. They learn about the design process and learn basic CAD skills to produce a wooden former and plastic mould. They learn about a range of plastics and their properties. On completion of the chocolate mould they explore the use of packaging and make a box.
<b>Projects Year 8</b>	<b>A Balanced Diet</b>	<b>Metal - Copper Plate</b>	<b>Textiles - Cushion Cover</b>
	Year 8 extends their skills and understanding of kitchen equipment, introducing them to small electrical appliances. They use a range of processes in focused practical tasks and develop their knife skills. They learn about the essential nutrients and how to plan healthy, balanced meals.	In this project students design and manufacture a product made from metal. They learn about the different types of metal and its properties. Firstly, they use the design process to develop a final design and prototype for a 'copper plate'. Students then learn how to use a range of metal specific workshop tools correctly and safely to manufacture it. There is a particular emphasis on finishing techniques and high quality outcomes.	In this project students design and manufacture a cushion cover. They learn about the different types of fabric, its origins, and impact on the environment. Through focused practical tasks they produce a final outcome using a range of decoration and assembly techniques, including the use of a sewing machine and smart materials.
<b>Projects Year 9</b>	<b>International Food</b>	<b>Engineering Manufacture</b>	<b>Engineering Design</b>
	Students develop their previous skills and are introduced to planning internationally themed meals, incorporating a range of more complex practical tasks. They learn about the environmental, dietary and economical impact of having local access to international foods.	This project focuses on the different scales of production and the use of CNC machines. Students manufacture a 'portable speaker' using standard components and the laser cutter. They learn simple electronics and how to solder, producing their own amplifier circuit. They develop their CAD skills to laser cut a speaker casing and then assemble all the parts. There is an emphasis on the use of quality control and testing.	This project focuses on the design cycle and develops students skills and confidence in communicating their design ideas. They use research and product analysis to explore a design brief. This leads to a wide range of practical drawing tasks where they experience both 2D and 3D forms of design development. They improve their CAD skills and produce a scaled prototype using a range of hand tools.