

YEAR 9 Design and Technology

CURRICULUM PROGRESSION OVERVIEW

In Design and Technology, students build on the knowledge learnt in year 7 and 8; from developing greater confidence to work safely and independently with a wide range of tools and equipment as well as preparation and cooking techniques, being able to cook a range of predominantly savoury dishes whilst understanding the effect of heat on proteins and carbohydrates and developing a deep understanding how poor choices can affect health in the long term. The curriculum will engage and enthuse a passion for the subject. Giving opportunities to explore practical activities which will enable mastery of skills and secure knowledge.

The students study half a school year of Design, followed by Technology (food) or vice versa. The room allocation dictates the task order, on a rotation.

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Topic	Hygiene and Safety	Food Practical Skills	Food Choice	Mixed materials designing and making.	Electronics, ergonomics and anthropometrics.	Famous designers, CAD designs.
Core Knowledge/ Threshold Concept	Develop a greater depth in understanding of food related causes of ill health, including types of pathogens, food allergens and how illness can be prevented.	Develop students' mastery in the kitchen to work confidently, independently and as part of a team, safely with a range of high skill recipes designed to stretch and challenge them, including, preparation techniques (weigh, measure, mix, peel, cut, slice, dice, chop, rubbing in, grate, drain, flake, mash, combine, divide, beat, cover, cream, sift, roll-out, fold, crush, spread, grease, debone and skin), cooking methods	Students will be able to discuss in detail how lifestyle choices can have a long term effect on health, describing a range of risk factors and how small changes can make long term improvements. Focus on food Provenance – How food is caught and sustainable fishing.	Developing CAD/CAM knowledge as well as learning new manufacturing techniques and manufacturing a mixed material final product.	Developing subject knowledge and modelling techniques, designing for a purpose.	Famous designers. Sustainability and design skills considered in further detail.

		(Using the hob to fry, boil, simmer, reduce and an oven to bake) and quality checks (Layer, present, pipe, pour, form, decorate, garnish).				
Why this learning now?	Learning is deliberately sequenced having considered what core knowledge is required to unlock deeper understanding of a topic and the ability to make connections between topics so that when implementing this intent, teachers can effectively and explicitly draw attention to where a keyword/concept/behaviour/pattern etc. has been seen before and effectively expose the relationship to the current topic through questions such as: Where have we seen this before? What does this remind us of? How does this have a relationship with what happened previously? How does our understanding of the previous concept inform our understanding of this one? And hence facilitate better learning.					
	Students will gain knowledge of food related causes of ill health, including pathogenic bacteria, as well as food allergies and intolerances. They will be able to link with food choice and recipe modification.	Students will be able to identify patterns when using a range of ingredients and different methods of heat application. They will be able to predict what may happen and what to do if things go wrong. They will be able to link their learning to science concepts.	Further to work in both year 7 & 8, students will be able to discuss different dietary needs throughout the different life stages and risk factors for ill health. They will be able to discuss how they could improve their own diets and recipe modification to develop healthier choices.	Developing an understanding of the importance of health and safety, particularly when using a variety of different materials and techniques. Developing confidence within the workshop.	Relating design ideas in detail to prospective clients, considering form, function and sizes as well as practicality in use.	Developing upon work covered in Year 7 and 8, design and presentation skills.
Assessment Opportunities:	Following the Trusts assessment policy for termly assessment					
	PC1 Assessment. Formative in class assessment of skills and ability, knowledge and understanding.	Formative Assessment. Self-assessment of practical skills. Product evaluation of organoleptic qualities.	PC2 Assessment. Formative in class assessment of skills and ability, knowledge and understanding.	Formative in class assessment of skills and ability, knowledge and understanding.	PC3 Assessment. Formative in class assessment of skills and ability, knowledge and understanding.	Formative in class assessment of skills and ability, knowledge and understanding.

Learning at Home	Within Design and Technology, students are issued with one home learning task per half term.					
	Design task	Research task	Revision task	Design task	Research task	Revision task
Key Vocabulary	Allergy Anaphylaxis Intolerance Food poisoning Microbe Pathogenic	Coagulation Shortening Adaptation Modification (including key practical skills in core knowledge section)	Nutrition Deficiency Cholesterol Speciality diets Vegetarian Sustainable	Aluminium Ferrous and non-ferrous metals Tolerance Swarf Burr	Ergonomics Anthropometrics Prototyping Modelling	Sustainability Typography Fonts Post Modernism
Spiritual, Moral, Social and Cultural concepts covered	<ul style="list-style-type: none"> • sense of enjoyment and fascination in learning about themselves, others and the world around them • use of imagination and creativity in their learning • willingness to reflect on their experiences • understanding of the consequences of their behaviour and actions • use of a range of social skills in different contexts, for example working and socialising with other pupils, including those from different religious, ethnic and socio-economic backgrounds • ability to recognise, and value, the things we share in common across cultural, religious, ethnic and socio-economic communities • willingness to participate in and respond positively to cultural opportunities 					
Links to careers and the world of work	<p>All students are given the opportunity to take a Design and Technology subject as an additional option at KS4. The KS3 curriculum develops student's crucial knowledge and skills for those who wish to pursue the subject further at KS4.</p> <p>Design and Technology addresses the needs of each student in developing their confidence to work independently and with resilience, reflecting on their progress and ability.</p> <p>The subject has curriculum links to a range of careers in the design and engineering field as well as hospitality and catering, discussed throughout lessons.</p>					