Design and Technology at Key Stage 3 at Cottenham Village College aims to resource our learners with the skills and resources to make a positive impact on society. We want to provide them with the experience of the changing face of design and engineering and the impact our design decisions make on people, the environment and society. The curriculum is designed to build a foundation of material knowledge underpinned with a focus on sustainability that allows students to explore a user-centred design approach leading to creative thinkers with empathy and consideration of others.

At Cottenham VC we routinely use a range of strategies to formatively assess and give feedback to students about their progress. In Design and Technology these strategies include rotational knowledge quizzes to assess understanding of technical concepts and key vocabulary. Whole class feedback used to aid the development of new practical skills.

	Rotation 1	Rotation 2	Rotation 3	Rotation 4
Key subject knowledge: Building a strong foundation in Design and Technology	Design Communication, drawing and sketching in 3D, rendering texture to communicate design intentions	Design Process, working with a client, using research and investigation to develop an appropriate outcome for a problem	Food and Nutrition, working safely in the kitchen, cutting and preparation skills	Making Skills, working with timber-based materials
Key disciplinary knowledge: Key skills and technical knowledge	Using perspective drawing techniques to demonstrate design ideas in 3D. The use of isometric projection to accurately reflect proportions and dimensions when communicating design ideas. Be able to confidently render a range of materials to bring realism and accuracy to design drawings.	Using product analysis as a form of investigation, identifying problems to solve. Investigation of graphic design principles to communicate information to a user. Investigation of the properties of papers and boards as a material and their use in product design.	The importance of food hygiene and the 4 C's (Cleaning, Cooking, Chilling, and Cross Contamination) Nutrition and the importance of a healthy balanced diet. Safe cutting and ingredient processing skills. Development of baking skills and independently working from recipes.	The importance of working safely in the workshop and introduction to the safe use of tools and equipment used in the production of timber product. Use of marking equipment to accurately prepare for production. The working properties of different timbers.
Summative Assessment Strategies	Baseline technical knowledge quiz. Completed design drawing, demonstrating design communication skills (perspective, tone, rendering, annotation)	Completed project demonstrating the following skills. Writing a specification demonstrating awareness of user needs. Product designed that meets the specification.	Cold knowledge quiz Demonstrating appropriate practical skills Assessment of independent working practice	Technical knowledge test Demonstration of independent working skills. Assessment of practical production skills and tool uses.

How does this unit prepare students for future study? (Why does this unit go here and not elsewhere in your curriculum)	The skills covered in this unit are used across the curriculum. This unit works as a foundation to the skills used to clearly communicate basic design ideas.	Considering the way that users interact with our products is an important part of the process. This unit will introduce students to several critical design planning and research skills that we will build upon as the course continues.	Students will begin to develop the language to discuss nutrition and identify key aspects of a balanced diet. They will build key skills such as kitchen hygiene chopping, weighing and working from a recipe.	Students will gain an understanding of safe working practices when in the workshop. They will be introduced to the importance of material management and the properties of timbers as a material.