

Design Technology KS4 –Statement of Intent

"Design is not just what it looks like and feels like. Design is how it works." -Steve Jobs, co-founder of Apple, Inc.

At All Saints Academy the Design and Technology curriculum is designed alongside the Academy vision of *'Living well together with dignity, faith and hope.'* We want our learners to explore the disciplines of design and technology through product design and resistant materials so they can use this knowledge to flourish in the world of work. We hope that students can provide dignified responses to production briefs that are comparable to real world contexts. During the practical application of skills learners will develop confidence and show faith in their ability to design, aligning their hopes and visions to the outcome of the production brief. We would like students to understand how to conduct themselves safely and appropriately with manufacturing tools, including appreciating the origins of materials, their sustainability and ergonomics.

We will ensure all our learners have access to the materials required for production, and our pupil premium grant will be used to provide these students with access to a range of materials and resources for both construction and aesthetic finish. Our SEND learners will be provided with stepped guides and support to achieve production outcomes, with student support workers shadowing their use of the materials and machines. In Year 9 there will be additional opportunities for our learners to see design in action when they will visit the Warner Brothers Studios – Harry Potter experience in Leavesden - where students will experience a workshop from the props and set design teams.

Research informed practice in the Arts:

In the Arts faculty the department has used research by Dianne Minicucci (*Decolonising and diversifying the art curriculum*) and the NSEAD website (*National Society for Education in Art and Design*) to inform changes in the curriculum maps. It has allowed the lessons to incorporate more cultural capital and to broaden the focus away from traditional the canon of white, male, western artists. This has also made lessons more varied and added an extra dimension of interest to our students' work. In textiles and graphics the team have read work by Sarah Graham, Lucy Sparrow, Lekwena Mciver and Yinka Shonibare to improve aspects of planning, sequencing and subject specific knowledge. Finally, subjects have been more focused on knowledge rather than skills. This has helped student's analysis of art and design, and their understanding of context and cultural capital. This approach is advocated by authors such as Myatt in her book, *The Curriculum*.

Specific support planned for SEND students:

All students work towards the same outcomes. Support and differentiation occurs through the level and variety of skill used to reach a specific outcome. This makes each outcome achievable to a greater or lesser extent. This is highlighted in pink font on lesson slides. At specific parts of the lesson students receive 1:1 support; this is also signposted in pink pen in students' sketchbooks. Learning mats are used to remind students of key words and processes. Teachers model answers to all, and use insightful questioning to check understanding and progress. Sometimes, students support each other in this process too.

Year 10

Substantive Knowledge

In Year 10, we build the substantive knowledge of our students through encouraging them to become enquiring, confident and enthusiastic. They will define and solve problems and become knowledgeable about the resources need to help them create even better solutions. Our knowledge based curriculum builds upon material taught throughout KS3 on design, product development and manufacturing.

Disciplinary Knowledge

In the first term we challenge students to think about: industrial developments and technological advancements; environmental and economic factors; the role of sustainability and ethics in user-centred design. In term 2 students will have opportunities to develop their technical skills that focus on visualisation and realisation of ideas and information. In term 3 students will design and create a final outcome for Year 10 which draws upon all of the skills and knowledge they have developed throughout the design and technology course.

Students will further develop the disciplinary skills learnt in KS3 with a focus on drawing, digital design, physical materials and prototyping, as well as knowledge and understanding of the current and emergent means of production, manufacturing, and digital technologies such as CAD and CAM. They will learn how to work safely with hand and machine tools as they manufacture their product. Students will draw on cross curricular disciplinary skills including mathematics, science, art and design, computing and the humanities to inform their design and manufacture decisions.