

## Design and Technology Curriculum Statement 2023 - 2024

Aims – cross ref to context					
Build resilience, self-reliance and perseverance	Raise aspirations and promote “self-challenge”	Experience a broad range of subjects and learning opportunities	Increase the “cultural capital” of students	Support Mental Health and Wellbeing	Develop deeper understanding and a love of learning and self-development.

Design and Technology at Sandwell Academy is a diverse and expansive subject offering a range of key skills which would be applicable to a variety of career directions. In recent years, the GCSE Design and Technology qualification has undergone a radical change in the direction of its subject content, and is now inclusive of a range of subject areas including:

- Systems and Control
- Resistant Materials
- Textiles
- Graphics
- Computer Aided Design and Manufacture

The intention of the curriculum for Design and Technology at Sandwell Academy is to ensure that this entire subject knowledge range is covered from an early stage and therefore implementation of the subject knowledge for GCSE requirement begins in year 7 with the teaching and delivery of 6 varied and engaging projects. Each project aims to deliver the skills and basic knowledge required to establish a baseline for students to build upon into year 8, and then into KS4 and KS5.

### **Curriculum Implementation**

**KS3** Students will undertake three projects in each year of Key Stage 3 based around six key areas of the National Curriculum. These projects will be also cross linked to the requirements of the GCSE Specification for Design Technology.

The projects are designed to develop knowledge and understanding of the technical aspects of the course alongside developing cultural capital. Students are also taught how to be safe in a workshop environment and be able to conduct their own risk assessments. This is essential for the safety of themselves and for the safety of others.

The projects they will study include:

Year	Project	Cultural Capital
7	Skills Passport	Developing the basics
	Cast Jewellery	Design across the world
	Memphis Clocks	Inspired by others
8	Moo Shakes	The world of packaging
	Lamps	Environmental Design
	Camera Prototype	Designing for others
9	Coat Hooks	Scales of production
	3D CAD	Industrial design brief
	Educational Toy	Inclusivity

## **KS4**

As students' progress into year 10, the skills they have acquired in Key Stage 3 will be directed to a more in depth project which aims to build up mini portfolios of work and give students a sense of the expectations for GCSE Design and Technology. They will also have the opportunity to work with industry specialists in a focused and competitive project aimed to allow students to see how Design and Technology may be applied in the real world.

As they progress into year 11, their Non Examined assessment element begins and students will identify and solve a problem of real life expectations through design, development and prototyping. This will account for 50% of their GCSE alongside the theoretical and technical knowledge of the examination which they sit in the Summer.

## **KS5**

Students who choose to study Product Design at A-level will have an aptitude for designing and making and will be expected to build upon their knowledge of key stage 4 into a more analytical and evaluative manner in KS5. They will be problem solvers, designers and inventors in their own right, who are keen to learn more about the design and engineered world around them, as well as tackling more challenging design activities as part of the course requirements. They will identify a problem from their own experiences and will spend the majority of their time investigating, analyzing and implementing solutions and outcomes which could satisfy the problems identified. Alongside this, they will learn about the technical, mathematical and physical nature of Product Design and be assessed on this through 2 examinations which will take place after their NEA submission.

### **Catch up plan**

**KS3:** In lessons, projects will now be longer and will span a term as oppose to a module. This will allow extra intervention to take place in the form of targeted extension activities in lessons, such as extra drawing activities. It will also allow additional time for making activities and fully understanding the health and safety and quality control measures needed for a high quality practical outcome. More emphasis will be placed on learning through doing and projects, where projects will focus on 3 key material areas- timbers, plastics and metals, and theoretical tasks will be planned and differentiated to compliment this practical learning. Session 3's will begin to take place in ½ term 2, 4, 5 and 6 and will initially be enriching as oppose to intervention. However, as data progresses through the year, targeted intervention session 3's will also be implemented.

**KS4:** Lessons will focus on both theoretical and non-examined assessment elements of the course for all years. Year 9 will work on smaller scale projects with a hands on, practical approach to fill gaps in practical knowledge from key stage 3. Year 10 will focus on extended project work in preparation for the requirements of their NEA folder work. This will involve practical and theoretical work as well as regularly set homework from the CGP revision resources. Year 11 will be working on their NEA as usual following the guidance sent by AQA to focus on the prototyping elements and not necessarily the practical outcome. However, students who are progressing onto course within a DT or engineering capacity will be encouraged to make a final outcome if time permits them to do so. Theoretical knowledge and understanding will be delivered every lesson and assessed through regular end of unit testing. Session 3's will be primarily for year 10 to provide catch up workshop sessions for missed practical learning in year 9. There will also be a session 3 allocated for year 11 twice weekly. One will be a drop in session where students can make use of workshop facilities and computers to do NEA work, the other will be a targeted session where class teachers will work with 3-4 students in a focused session with individual support plans to follow.

**KS5:** a similar approach to KS4 with time being spent in ensuring key basic expectations such as

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drawing, making and health and safety have been considered. This will be done through a practical skills based project for year 12 where they will complete a health and safety audit based on practical experimentation. Year 13 will continue to progress with their NEA and one to one guidance and support offered through verbal and written feedback as regularly as is deemed necessary. Session 3's will run similarly to year 11 with a drop in support session and a targeted intervention session for individual students.