Queen Elizabeth's
ACADEMY

Curriculum Rationale

Design & Technology

Introduction

Everything we see all around us has been designed and made. Design and Technology is about converting ideas and raw materials into the products we use in our daily lives. It is a very important subject as without it the world we live in would be a very different place.

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. DATA (Design & Technology Association)

Design and Technology teaches students to have many useful transferable skills to use in future jobs, practical skills to help yourself, life skills so you can cook, sew, create, repair etc. Design and Technology prepares students to live and work in the designed and made world.

Christian Distinctiveness

In Design & Technology, we look at Christian distinctiveness through our varied and interesting curriculum. As with our academy we share the vision of the Church of England *'life in all its fullness'* (John 10:10) is *'about educating the whole person'*. We explore spiritual, physical, intellectual, emotional, moral and social development, creativity (discovery and innovation) and joy.

Community sharing with others, relationships to flourish together. Wider community supporting the summer and Christmas fete, Boxing Day brunch, involved in local competitions.

Wisdom-knowledge and skills, confidence and delight. Students learn a range of skills to enhance their practical learning nurturing their self-esteem and building confidence in their own ability.

Hope-aspiration, learning from mistakes and solving problems particularly using the iterative design process, which is a cyclic approach. Looking at past and present designers, iconic design and innovation. Creativity, we look at various ways to enhance student's creative skills finding a way, which is inclusive to all, aspires, and brings joy.

Dignity and Respect-respecting others opinions, critic others, human rights-moral and social needs, and ourselves learning how to be a good person. They learn to trust and respect each other when working together.

Knowledge in Design and Technology

In Design & Technology students learn the core knowledge based on the National Curriculum and staff expertise in what we feel as experienced staff should be covered. The curriculum has been designed to be systematic building on the knowledge and skills in different material areas and ensures that all students; develop creative, technical and practical expertise needed to perform everyday tasks with confidence. Be able to build and apply a repertoire of knowledge, understanding and skills to design and make high-quality prototypes and products for a wide range of users. Be able to critique, evaluate and test their ideas and products of others. Understand and apply the principles of nutrition and learn how to cook. We use GCSE DT subject specifications to close the gap in knowledge at KS4 as we embed so much more knowledge through the academy's knowledge rich curriculum vision.

We want our Design and Technology students to be able to learn the fundamental life skills that they learn in the practical skill based lessons, and have the knowledge to inform them. In general the life skills that we all take for granted how to iron, sew, cook, use a saw, measure, weigh etc all are taught in Design & Technology. In Food for example, they learn to make sensible decisions in food choices with the importance of healthy eating, nutrition and general food knowledge. They use this knowledge in the practical application demonstrating life skills that they will need, and hopefully teach others. There is a key focus on health and safety in all subjects both at KS3 and KS4. As we are an Option subject students are taught in years 7, 8 and 9 learn the core knowledge and the relevant practical skills we believe are key life skills.   We offer a curriculum that is both rich in its creativity and knowledge.

Our rich hinterland of knowledge and cultural capital is weaved into all our curriculum across each project and each year group, and gives interest and depth and experience in teaching our subject.

Careers and Aspirations

Our students often go on to the next step of learning gaining places at local colleges and sixth form centres, with some to explore Engineering apprenticeships. They have the knowledge and skills ready to go onto their next learning path. Using all of this can open up to a variety of careers which include construction, carpentry, arts, crafts and design, fashion and textiles, interior design engineering and manufacturing. We raise aspirations by creating a cultural capital, which shows our students what past students have achieved, and with well-known designer makers, chefs, engineers etc.

Overview of curriculum plan

The KS3 curriculum allows all students to participate in three specialist areas of Design & Technology allowing so many weeks in a rotation throughout the year.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 7	Core Design	Timbers	Timbers & Textiles	Textiles	Food	Food
Year 8	Food	Food	Textiles	Textiles	Polymers	Polymers
Year 9	Metals	Metals	Textiles	Textiles	Food	Food

In Years 10 & 11 Design and Technology students can opt for GCSEs in either Engineering, Hospitality and Catering, or Design and Technology, all of which have different curriculum plans, to suit the needs of the course.