



Middlewich High School



QUALITY OF EDUCATION

Design & Technology Department Curriculum Rationale

The Curriculum rationale of the Design and Technology department is outlined below. These are the principles that shape our intent, implementation and intended impact of our subject area on the wider Middlewich High School Curriculum. We believe that every pupil, regardless of ability or background, should expect the same consistently high-quality education in every lesson taught by every teacher across our Curriculum team.

<p>Our Vision and Values for our Subject are:</p>	<p>Vision and Values:</p> <ul style="list-style-type: none">● To foster awareness, understanding and expertise in those areas of creative thinking which can be expressed and developed through investigation and research, planning, designing, making and evaluating, working with materials and tools.● To encourage the acquisition of a body of knowledge applicable to solving practical / technological problems operating through processes of analysis, synthesis and realisation.● To stimulate the development of a range of communication skills which are central to design, making and evaluation.● To stimulate the development of a range of designing and making skills.● To promote the development of curiosity, enquiry, initiative, ingenuity, resourcefulness and discrimination.● To encourage technological awareness, foster attitudes of co-operation and social responsibility, and develop abilities to enhance the quality of the environment.● To stimulate the exercising of valued judgements of an aesthetic, technical, economic and moral nature.
<p>Our rationale for teaching what we teach is as follows:</p>	<p>KS3:</p> <ul style="list-style-type: none">● Built around what we believe to be the five foundations of Design and Technology; Investigate, Design & Develop, Materials & Manufacture and Testing & Evaluation.● Students learn new skills each year whilst building on prior knowledge.● Units aim to develop a strong knowledge base and a confident, well prepared student equipt for the GCSE in Design and Technology.● Develop knowledge of the processes involved in designing products, such as investigating manufacturing processes involving a wide range of material areas including; textiles, electronics, new and smart materials, wood, metal, and plastics. <p>KS4:</p> <ul style="list-style-type: none">● Links back to KS3 units to further enhance the knowledge and skills students have already gained, e.g. understand and apply iterative design processes, introduced at KS3, through which they explore, create and evaluate a range of outcomes in a variety of material areas.● Gives students opportunities to apply knowledge from other disciplines, including mathematics, science, art and design, computing and the humanities.● Strengthen students' knowledge of the core principles surrounding the design process to develop an awareness of practices from the creative, engineering and manufacturing industries.

<p>The principles that shape our Key Stage Three Curriculum are:</p>	<ul style="list-style-type: none"> • provides pupils with the opportunities to use their imaginations • to push the boundaries of design • take design risks and become creative, practical and independent learners.
<p>The principles that shape our Key Stage Four Curriculum are :</p>	<ul style="list-style-type: none"> • Breadth and depth in our exam papers – our exam paper will assess the breadth of design and technology knowledge in the Core section, and assess the depth of knowledge in the chosen material category for the Specialist section to enable students to fully demonstrate their own particular strengths or specialism. • Creative design and making at the heart – the contextual challenges provided in our qualification, for example extending human capacity, will give students the freedom to take design risks and to innovate in a situation where it is safe to test and refine ideas. • Progression to AS and A Level – we’ve designed the GCSE and AS/A Level qualifications together to ensure clear progression of knowledge, understanding and design/making skills so that students will have a coherent experience of moving from the breadth of the GCSE to the specialisation of AS and A Level.
<p>Our Pupil Promise: You will see the following in our lessons:</p>	<ul style="list-style-type: none"> • A curriculum that builds confident learners who are able to design and develop with creativity and flair. • Engaged learners who are curious and eager to learn new skills and knowledge. • Structured learning that builds on previous knowledge and is founded upon schema. • Teachers who base their lessons on evidence based pedagogy.
<p>Cultural Capital we offer our pupils through our Curriculum is as follows:</p>	<ul style="list-style-type: none"> • Careers and Information built into lessons - where can DT take you? • Employability skills - vocational post 16 education • Personal, Social and Health Education - Food and nutrition / Healthy eating • Student Voice - How could we improve on what we offer? • Extra-curricular offer - enrichment to create awe and wonder about D+T.
<p>Next Steps – Our aspirations. We intend that our pupils will leave us in Year 11 with the following skills and qualities.</p>	<ul style="list-style-type: none"> • Students should be able to achieve on or above their target grade through their Non Examined Assessment (Coursework) and theory exam. • For students to leave KS4 capable and well-rounded designers and makers with links to their future pathways. • For students to have the knowledge and understanding to study the subject at KS5 and beyond. • For students to develop a wide range of cross curricular skills and knowledge that will be useful in life after school.

The Mission Statement of the Design & Technology Department

Design and Technology aims to provide pupils with an inspiring curriculum that offers creative opportunities to design, develop and manufacture concepts in a safe working environment. Utilising computer aided design programmes and CNC machinery, alongside the use of traditional tools and equipment, students will thrive on the experience of creating their own projects. Design and Technology at Middlewich High School provides pupils with the opportunities to use their imaginations, to push the boundaries of design, take design risks and become creative, practical and independent learners.