

CURRICULUM OFFER

Subject	Design & Technology
Intent	<p>Constructing the Built Environment Level 1 / 2 Award is designed to support learners in developing an awareness of certain key considerations. It mainly supports learners in schools and colleges who want to learn about the construction industry from the build perspective. It provides learners with a broad introduction to the different trades involved in the sector and the types of career opportunities available. (WJEC)</p> <p>Design and technology is a practical and valuable subject. It enables children and young people to actively contribute to the creativity, culture, wealth and well-being of themselves, their community and their nation. It teaches how to take risks and so become more resourceful, innovative, enterprising and capable. Students develop a critical understanding of the impact of design and technology on daily life and the wider world. Additionally, it provides excellent opportunities for students to develop and apply value judgements of an aesthetic, economic, moral, social, and technical nature both in their own designing and when evaluating the work of others. GCSE (AQA) level 1 & 2 Materials work along with the GCSE.</p>
Implementation	<p>Although each students' timetable is bespoke, generally KS3 student's access one lesson per week, while KS4 students access two to three lessons per week.</p> <p>In KS3 pupils will produce projects ranging from Bird boxes, clocks and personalised projects that will enhance skills with a wide range of tools and materials while following the design process.</p> <p>Design & Technology students in KS4 work towards GCSE Resistant Materials (AQA). Students which are interested in Construction can be entered for Level 1 & 2 Construction.</p> <p>Students explore materials and ideas in depth and complete a project: Developing ideas, linked with exploring existing products, exploration of materials, recording work in Folders and producing final outcomes.</p> <p>Students' work is assessed regularly, and students continually have verbal feedback in lessons. Formal assessments take the form of tracking pupils work against set targets.</p>
Impact	<p>CITB are delighted to have been able to work with WJEC to develop the Level 1 / 2 Construction Qualifications which are based on industry approved content and provide the opportunity to inspire the next generation of young people to consider Construction in its widest context as a career of choice</p> <p>Design Technology is an inspiring, rigorous and practical subject. It provides visual, tactile and sensory experiences and a special way of understanding and responding to the world by ensuring that pupil's design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. It enables children to communicate what they see, feel and think through the use of disciplines such as mathematics, science, engineering, computing and art. Children become involved in shaping their environments through Design Technology activities by the taking of risks, becoming resourceful, innovative,</p>

	<p>Enterprising and capable citizens. They learn to make informed judgements and aesthetic and practical decisions 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.</p>
<p>Accreditations</p>	<p>Within the Construction department we can offer our learners the opportunity to achieve outcomes in the following courses to support their future careers and development in the construction industry.</p> <p><u>Constructing the Build Environment Level 1/ 2</u></p> <p>CITB are delighted to have been able to work with WJEC to develop the Level 1 / 2 Construction Qualifications which are based on industry approved content and provide the opportunity to inspire the next generation of young people to consider Construction in its widest context as a career of choice. Learner will explore both practical work and learn three core areas of Construction trades and apply this to a solution. They will learn Carpentry, Painting and decorating and Electrical installation. The</p> <p><u>Resistant Materials Technology 4562</u></p> <p>This specification is Design and Technology offered by AQA. There is one tier of assessment covering grades A* to G.</p> <p>Unit 1: Written Paper (45601) 2 hours –120 marks – 40% Candidates answer all questions in two sections Pre-Release material issued plus Unit 2: Design and Making Practice (45602) Approximately 45 hours – 90 marks – 60% Consists of a single design and make activity selected from a range of board set tasks.</p> <p><u>Level 1 Health and Safety awareness</u></p> <p>Learners can complete a Health and Safety awareness course. One day course offered at Wickford site.</p>
<p>Enrichment opportunities</p>	<p>We have two well-resourced sites in Langdon Hills & Wickford. We are in the process of opening a dedicated workshop to support learners on the Fairview site. Each Design Technology room is well resourced with a range of machines & tools and 2 computers available for folder work. Pupils have access to Laser cutting machine using TechSoft and 3D printer to aid modelling of project and use 3D software CAD/CAM.</p> <p>Teachers will be taking some students to ProCat to help students understand more about Apprenticeship. The Design Technology department will also take some students to a taster day at Southend college to explore future prospects.</p>

<p>Safeguarding</p>	<p>In design and technology safeguarding is at the heart of our teaching and learning philosophy. We facilitate our schemes of work to ensure that pupils.</p> <ul style="list-style-type: none"> • To gain and understanding of the touch and feel of certain materials. • Accept when something goes wrong or doesn't turn out as expected. • Celebrate the success of others to give encouragement and boost self-esteem. • Choose materials safely including things like no sharp edges etc. • Use tools and resources that are appropriate for a tasks. • Work inclusively with all students who may have different needs. • Express opinions, giving and receiving constructive feedback. • Work safely following health and Safety guidelines. • To develop tenacity to innovative and be creative in their thinking.
<p>Reading</p>	<p>Students are encouraged to read information as part of their learning experience in lessons. Key words and examination terminology is shared with all students and linked to the learning objectives of the lessons.</p> <p>Our Learning incorporates reading as part of the process when developing and in the use of analysis and interpretation skills. In all our subject areas we have subject-specific books available to guide our students. We also guide and support our students in researching and reading online to gain subject knowledge.</p> <p>Staff employ a range of strategies to support students who require support with their reading: breaking down words, using contextual clues, pre-teaching new vocabulary, reading interventions (Lexia) or a coloured overlay if required. Teachers regularly read aloud to students to model pace, expression, and pronunciation. Pupils are also encouraged to read in class to develop their confidence.</p>
<p>Outline of Virtual Curriculum offer</p>	<ul style="list-style-type: none"> • Lessons will be offered through a virtual timetable and accessed via TEAMS. • All virtual resources will reflect the expectations of the existing curriculum. • Work will be assessed in line with teaching expectations, Examination criteria.
<p>Digital Literacy (including e-safety)</p>	<p>Digital literacy is an important entitlement for all young people in an increasingly digital culture. It furnishes children and young people with the skills, knowledge and understanding that will help them to take a full and active part in social, cultural, economic, civic and intellectual life now and in the future. To be digitally literate is to have access to a broad range of practices and cultural resources that you are able to apply to digital tools. It is the ability to make and share meaning in different modes and formats; to create, collaborate and communicate effectively and to understand how and when digital technologies can best be used to support these processes. Learners are given every opportunity to access ICT within the Creative Arts curriculum to embellish digital literacy into their projects.</p> <p>Becoming digitally literate involves not just being active in exploring digital media but also in creating it and understanding that it is created. Digital literacy therefore supports and is supported by creativity. Being creative is usually understood to involve generating novel ideas; it means using one's imagination to make connections between ideas and to generate creative products.</p>

	<p>Students are supported on a range of platforms in the Creative Arts faculty to express their work and use technology to extend their learning opportunities. Whilst also learning about the importance of E safety and continuing to use technology to learn in a safe manner.</p>
<p>Reading and literacy</p>	<p>We have stimulating displays in the classroom, with opportunities to read and engage, as well as a selection of new books to stimulate interest. Many of these books are produced by the construction industry to support the qualifications that we offer.</p> <p>Reading is an essential part of our lessons, and we target specific science words so that we can support the vocabulary. We decipher and decode words and encourage students to use the correct vocabulary for Design and Technology curriculum knowledge and comprehension. Oracy and the ability of our students to verbally communicate their work and question their knowledge are key skills that we regularly use. We encourage expression of opinions and the right to challenge them with scientific evidence. Reading to students and encouraging them to produce written work are also invaluable tools for creating a positive reading culture in our subject.</p> <p>We have developed displays that allows our students to study the current examination vocabulary.</p>
<p>Number and numeracy</p>	<p>This is an integral part of Design and Technology education:</p> <ul style="list-style-type: none"> • Taking measurements using different equipment • Reading scales • Developing tables and graphs for presentations • Calculating averages • Scale factors • Simple equations • Reading and interpreting data for use in construction and projects • Using a calculator • Understanding units • Rounding numbers • Significant figures <p>During the Theory examination students will be expected to demonstration their calculations skills.</p>

**Career and
employment
links**

Our teachers regularly promote awareness of our curriculum links to post-16 employment. We have identified several key points in the year where we can highlight and advertise potential careers that may be of interest to our young people. We work with PSHE to identify ways to develop interest through workshops, visits and invite speakers and we listen to our students and tailor our careers information to their interests and abilities. We have forged links with post 16 providers that offer courses in the construction industry.