

Curriculum intent in Technology

Academy intent statement	In Technology we:	In order to:	Progress
<p><i>Be knowledge based, accessible and aspirational for all students</i></p>	<p>Students at KS3 will work through the 4 main principles of Design and Technology through a tiered sequence of learning. (Research. Design. Make. Evaluate)</p> <p>Projects will be relevant and aspirational as well as providing stretch and challenge.</p> <p>Students develop detailed knowledge and skills across the Design and Technology curriculum with the underpinning of TEEP.</p> <p>Research Students at KS3 will analyse the work of past and present professionals. (British and cultural designers)</p> <p>Design Students at KS3 will work through a tiered sequence of designing.</p> <p>All students are encouraged to work collaboratively and take risks when designing within a context.</p>	<p>Gain a broad range of subject knowledge and skills which will be embedded over time and draw on disciplines such as mathematics, engineering, computing and drawing.</p> <p>Achieve Mastery and show progress throughout the year in a range of tasks where each project will link to future projects at KS3 and KS4 and to skills in the wider world.</p> <p>Learn skills to assist in remembering facts in the long term. For example content they have been taught and to integrate new knowledge into larger concepts.</p> <p>Understand developments in design and technology, its impact on individuals, society and the environment. Relate the relevance of what they are doing now and how it has an impact on the future of design.</p> <p>Produce a portfolio of drawing skills from simple sketching to isometric drawing and 3D applications</p> <p>Produce innovative work and learn through experimentation, using different materials and exploring the use of colour, line and composition which then prepares them for the KS4 Graphics course and design courses post 16</p>	

	<p>All students will develop and communicate design ideas using annotated sketches, detailed plans, 3D modelling, and the use of maths and learning the process of CAD CAM.</p> <p>Make. Students are able to build and apply a repertoire of knowledge, understanding and skills through making.</p> <p>Evaluate All students will be able to critique, test and evaluate their ideas and products and the work of others.</p> <p>Students will evaluate past and present design.</p>	<p>Learn how to operate and run CAD and CAM applications, which will prepare them for the KS4 Graphics course and future roles in manufacturing and engineering post 16.</p> <p>Make high quality prototypes and products for a wide range of users.</p> <p>Gain experiences and give purpose to skills needed for the projects at KS4 and courses post 16 in design and manufacture.</p> <p>Analyse and solve problems, develop organisational skills and learn how to convert their ideas into working products including cross curricular activities which also draw on their experiences in other subjects such as Maths and Science.</p> <p>Develop a critical understanding of past and present design and its impact on daily life and the wider world.</p>	
<p>Enable students to make choices to keep themselves safe and well</p>	<p>H&S tick lists for each class and demonstrations of good practice</p> <p>Individual Risk Assessments</p> <p>At KS3 all practical units will have a step by step process in photographic and physical form</p> <p>Risk Assessments next to all machines following CLEAPSS guidance and comments pertinent to that machine.</p>	<p>Monitor and check throughout practical lessons that all tools and machinery being used are being used correctly and safely.</p> <p>Offer practical projects to all including SEND pupils or pupils who are a cause for concern.</p> <p>Encourage independence and embed knowledge on skills being used. Practical use and safety use.</p> <p>Ensure that safety is being applied in all parts of the workshops, food Room and Electronics suite.</p>	

<p>Raise aspirations and prepare students for successful progression post-16</p>	<p>Schemes of work to include Wider World concepts.</p> <p>Schemes of work to include ranges of careers</p> <p>Provide information on courses and careers in the design and hospitality and catering industries.</p>	<p>Inform students on how the unit they are studying has an impact not just in Britain but in other countries.</p> <p>Link their units of work to real life jobs through their homeworks, presentations and imagery on walls in the classroom.</p> <p>Study the progression into the Graphic Design Industry and the work of existing designers. (Including visits from local illustrators)</p> <p>Research job roles within Hospitality and Catering industries and invite in local chefs/hospitality staff.</p>	
<p>Ensure students develop knowledge, confidence and skill within English and maths</p>	<p>English</p> <p>At KS3 each Scheme of Work will include elements of extended writing.</p> <p>At KS4 extended writing is embedded into the delivery of Graphics and Hospitality and Catering.</p> <p>All students will improve their writing skills.</p>	<p>Apply their writing skills through Key texts. I.e. writing a Design Brief, a Specification and knowing how to write an evaluation.</p> <p>Writing frames will be created to assist students with extended writing. (For example create sentence starters following Blooms Taxonomy).</p> <p>Produce Homeworks which will include practice with reading and extended writing.</p> <p>Respond to written feedback which will include explicit challenge and/or response through next piece of work.</p> <p>Improve their work using key words, Key terminology and the use of connectives for example.</p> <p>Locate key vocabulary on the walls and attached to units of work to inform their writing.</p> <p>Gain Knowledge and develop their writing skills through marking, spelling and responding to feedback with purple pen.</p> <p>Improve their writing skills and write their writing targets on the front of their books</p>	

	<p>At KS3 reading ages will be recorded on tracking sheets in exercise books.</p> <p>Years 7&8 will have writing targets and literacy marking symbols on the front of their exercise books</p> <p>All students will learn speaking, reading and listening strategies.</p> <p>Maths At KS3 maths will be an integral part of each Scheme of Work.</p>	<p>Provide students with differentiated and marked work according to their age and starting points.</p> <p>Improve their spelling and grammar.</p> <p>Gain confidence through practice with class discussions and question and answer sessions. Apply knowledge of given tasks through listening to instructions and the answers to problems. Read in lessons and be set reading homework for research opportunities or to study a particular topic area.</p> <p>Learn elements of measuring over the year. (i.e. isometric drawing/ dimensions/ weighing Building in complexity from KS2</p>	
<p>Develop cultural capital</p>	<p>All students will research British Designers and look at designers from other cultural backgrounds.</p> <p>Yr. 7. Techno toy. David Hovarth. American designer of 'Ugly Dolls' Yr. 7. Sweet Dispenser. Kay Bojesen. Danish designer of 'The Monkey' David Weeks. American designer of 'Hanno the Gorilla'. Alexander Girard. American designer of wooden dolls.</p> <p>Yr. 8. Tex Light. Architects and companies of architecture. Mosche Safdie, Syrian architect living in Canada.</p>	<p>Embed knowledge, recap knowledge and apply future knowledge to their work. Students at KS4 Graphics study typographers and illustrators both locally and world-wide.</p> <p>Learn about different artists from different cultures, their differences and their views on sustainability, diversity acceptance and creativity. Through reading and extended writing tasks.</p>	

	<p>Daniel Libeskind. Polish architect. Habitat for Humanity in Cambodia. Yr. 8. VR goggles. Charles and Ray Eames. American designers of 'House of Cards', 'Eames Elephant', 'Power of Ten' and splints used in the war. Raul Speek. Cuban designer of advertising.</p> <p>Through a varied and engaging curriculum students will experience the awe and wonder of the world in which they live.</p> <p>All students will be encouraged to widen their cultural experiences</p>	<p>Demonstrate their competence in all areas of Design and Technology and encourage students to think outside what they deem as comfortable. Introduce students to values and ideas and how they can apply them to the project areas they are studying. Learn different skills, acquire knowledge, values and experiences over time.</p> <p>Apply these experiences through homework tasks and research projects providing them with reading material, video images and visits to appropriate museums. Through this, for example, students will develop and understand the use of 'educated language'. Thus encourage their ambitions post 16</p>	
<p><i>Develop skills and understanding for life in modern Britain</i></p>	<p>Rule of Law Students are taught the basic rules of legislation</p> <p>Respect and Tolerance All students are taught how to respect each other and themselves and to apply tolerance</p>	<p>Be familiar with good practice through research within the projects and the classroom culture. Any actions of students which do not display these qualities are dealt with through our C System and discipline systems within the Academy.</p> <p>Understand values and principles and how to apply them through the design process.</p>	

	<p>Individual Liberty Students are given the opportunity within Design and Technology for Personal Development.</p>		
<p>Promote the development of personal qualities such as commitment to learning, respect for others, resilience, pride in achievement and independence</p>	<p>These personal qualities are taught every lesson through our learning for progress grades.</p> <p>Commitment to learning</p> <p>Effective study skills.</p> <p>Pride in achievement</p> <p>Working independently.</p> <p>Respect for others</p> <p>Resilience</p>	<p>Responding to feedback. In purple pen on homeworks and classwork and in peer assessments.</p> <p>Asking questions. Engaged in the topic and answering questions from teacher and peers.</p> <p>Using learning tools. Many tools are presented for learning in D&T from help walls to physical help sheets.</p> <p>Attempting the most demanding challenges. Prepared to try, and if don't exceed first time try again in order to succeed. Often though help from their peers this has a positive outcome.</p> <p>Improving all the time. Through positive feedback in marking and verbal feedback in lessons all students have the opportunity to improve, and know how to get there.</p> <p>Presenting work well. A high standard is always expected based on ability and marked accordingly through our marking codes.</p> <p>Using initiative. This is encouraged through research and design tasks and the use of Student Experts to promote self-learning.</p> <p>Completing individual work in class. Most student's complete work set in class, with opportunities throughout the project to re-visit.</p> <p>Completing homework challenges. Homework challenges are set for every homework with an incentive that the students will be marked with Mastery if they produce work to a high standard.</p> <p>Working well in pairs and groups. A lot of design work is done in pairs and peer marked. During research tasks students have the opportunity to work in groups.</p> <p>Showing courtesy and consideration to everybody in the classroom.</p>	

		<p>Helping and coaching other students. We have student experts at KS3 and through this classroom culture students are happy to help and coach each other at KS4.</p> <p>Keep going when work is challenging and overcoming difficulties are encouraged in D&T lessons. Through extra demonstrations for practical and learning tools to assist, praise on work done so far, students generally persevere.</p> <p>Supporting others to solve problems. (See student experts)</p>	
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