



CURIOSITY

COMPASSION

COURAGE



Curriculum overview

Subject	BTEC Digital IT	Year group	10
<p>Vision statement:</p>	<p>At Landau Forte our curriculum exists to ensure all students regardless of background and ability have the opportunity to unlock their potential. We are committed to students being challenged from their previous key stage learning experiences. Our broad and balanced curriculum is ambitious, coherently planned and sequenced, and will provide the platform for preparing students with the foundations for examination success.</p> <p>Our Curriculum Intent has been informed by a wide variety of researchers and is steeped in evidence based research. Christine Counsell summarises the aspiration of our curriculum to empower all learners creating a pathway to success in university, their career and life:</p> <p><i>‘A curriculum exists to change the pupil, to give the pupil new power. One acid test for a curriculum is whether it enables even lower attaining or disadvantaged pupils to clamber into the discourse and practices of educated people, so that they gain powers of the powerful.’</i></p> <p>As well as excellent academic success we aim to ensure our students leave us as polite and well-rounded young adults. Our new core values of Compassion, Courage and Curiosity are currently being embedded throughout our curriculum offer to ensure we continue to meet our social, emotional, spiritual and moral obligations.</p>		
<p>Curriculum intent:</p>	<p>Computing will be central to everything students do in their future lives. This subject gives students the opportunity to utilise technology to enhance the way they live and work. It will also be used as a lens to develop their understanding of the world around them.</p> <p><i>In essence, computing should be seen as an underpinning subject that facilitates new learning and thinking in all other areas. The computer should be a tool that pupils use in the same way as a calculator or a pen.</i></p> <p>As outlined within the National Curriculum: “A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems.”</p> <p>The core of computing is computer science, in which students are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming.</p> <p>Building on this knowledge and understanding, students are equipped to use information technology to create programs, systems and a range of content.</p> <p>Computing also ensures that students become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. The need to use technology with care and compassion should be considered throughout all lessons.</p>		



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	Term 1 Aug-Oct	Term 2 Nov-Dec	Term 3 Jan-Feb	Term 4 Mar-Apr	Term 5 Apr-May	Term 6 Jun-Jul
The Big Question	What makes an effective user interface?					
Big picture questions:	What different types of user interface are there?	How do we plan a project?	How do we plan a project?	How do we make an effective interface?		What is data?
Content (Linked to TCs):	TC1 <ul style="list-style-type: none"> • What the different types of user interface used by individuals and organisations are • How UIs vary across different uses, devices and purposes • What the varying needs of an audience are and how they affect both the type and the design of an interface • Which design principles provide both appropriate and effective user interaction with hardware devices • Which techniques can be used to improve both the speed and access to user interfaces 	TC2, TC3 <ul style="list-style-type: none"> • The planning tools and design methodologies that can be used to plan, monitor and execute projects • How to use project planning techniques to develop a project plan for the development of a user interface for a given brief 	TC2, TC3 <ul style="list-style-type: none"> • The planning tools and design methodologies that can be used to plan, monitor and execute projects • How to use project planning techniques to develop a project plan for the development of a user interface for a given brief 	TC4 <ul style="list-style-type: none"> • How to use designs to produce a user interface • How to utilise common user interface components • How to refine a user interface using an iterative process with potential users • How to review the success of a user interface • How to review the use of their chosen project planning techniques TC1/2/3/4 All previous content as part of a trial assessment in preparation for the full exam board assessment window.	TC1/2/3/4 Exam board assessment window.	TC1 (Y11) <ul style="list-style-type: none"> • What data is • That data is meaningless without converting it into information by adding structure and context • What the different ways of representing information are • How to explain situations where different information representations would be used • What methods can be used to ensure data input is suitable and within boundaries so that it is ready to be processed • How the data collection method and data collection features affect its reliability • What factors affect the quality of information and the impact this has on decision making



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						<ul style="list-style-type: none"> • How different types of organisation use data modelling to help make decisions • What different threats individuals face who have data stored about them
Vocabulary Instruction:	Speech/natural language, GUI/WIMPs, sensors, menu, forms, computers, handheld devices, entertainment systems, domestic appliances, controlling devices, embedded systems, performance/response time, ease of use, user requirements, user experience, accessibility, storage space, operating systems/platforms, demographics, search fields, breadcrumbs, icons	Methodologies, Gantt charts, critical path diagram, PERT charts, mood boards, mindmaps, waterfall, iterative, Agile, SMART aims/objectives, audience, purpose, requirements, accessibility, timescale, milestones, constraints, dependencies, contingency, visualisation, storyboards	Methodologies, Gantt charts, critical path diagram, PERT charts, mood boards, mindmaps, waterfall, iterative, Agile, SMART aims/objectives, audience, purpose, requirements, accessibility, timescale, milestones, constraints, dependencies, contingency, visualisation, storyboards	Features, user requirements, inputs, outputs, navigation methods, refining, iterative, suitability, audience, purpose, principles, methodologies, constraints	All previous.	Structure, context, unprocessed, text, numbers, tables, graphs/charts, infographics, input, boundaries, validation, range check, type check, lookup check, data type check, presence check, length check, verification, proofreading, double entry, reliability, primary data, secondary data, information, third party, sample, big data, accuracy, completeness, format/presentation, volume, modelling, just-in-time delivery, demographic
Assessment:	Knowledge check Topic test	Knowledge check Topic test	Knowledge check Topic test	Trial assessment	Comp 1 formal assessment window	Knowledge check Topic test



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Key/Historical misconceptions in this unit:	There is one, best type of user interface that all users should use. User interfaces all look like variations of Windows that we use in school.	Planning is just creating a timeline. We cannot plan for mistakes that happen. The order that we complete tasks is not really important.	We need to make products in their entirety before sharing them with the target audience.	n/a	n/a	n/a
Sequencing:	<p>We have chosen to sequence the year 10 curriculum like this because...</p> <p>The content for this year is based around preparation for completion of the exam board set assessment at the end of the year. We explore the three key concepts that make up this project in each of the first three terms: exploring user interfaces, project planning and interface development. There is a chance in term 4 to recap these key aspects as part of a trail project that reflect what they will be expected to be able to do in the full assessment. This approach ensures that students are adequately prepared for the full assessment and hopefully to achieve a grade that reflects their full abilities.</p> <p>Lastly, the work covered in term 6 is get ahead ready for Year 11. The time gained here will be used to begin preparation for the examined Component 3 alongside the work completed for Component 2 at the same time.</p>					
Values	<p>This scheme of work promotes the school values of Compassion, Curiosity and Courage by:</p> <p><i>Compassion:</i> Users of computers are creating things for people to use and read. They should therefore do this in a way that considers the impact of their actions and use this as a moderating voice.</p> <p><i>Curiosity:</i> Students apply their learning to many practical examples. They are given problems to solve and use their prior learning to help arrive at new solutions.</p> <p><i>Courage:</i> The nature of the work and the activities they have to complete develop the courage of students. They need to learn how to solve more complex problems by breaking them down into lots of smaller, easier-to-achieve tasks.</p>					
National Curriculum plus:	<p>In addition to teaching the statutory elements of the national curriculum, we also include</p> <p>Case studies are an important part of the learning for this topic. It helps students to understand what they are doing with the context of the real world. Indeed, this is a vocational qualification and this is reflected in the examples explored and the work produced.</p>					