CHS Curriculum Intent

SUCCESSFUL: Learners who gain deep and powerful knowledge in preparation for life; combining academic rigour, curiosity and creative flair.

CREATIVE: Learners who are imaginative, optimistic and inventive; finding their voice to become effective communicators prepared for lifelong adaptability

HAPPY: Learners who are confident, resilient, well-rounded citizens; they understand the world's communities and are ready to discover their place in it.

CHS Curriculum Area Framework for Learning – Year 11

SUBJECT	BTEC Level ½ Digital Information Technology
INTENT	Studying Digital Information Technology will broaden learners understanding of modern technologies offering vast insight into how individuals and organisations use them to communicate, collaborate and work in the modern world. As technology evolves, so does the potential threats to these systems. In turn, students will further their understanding and knowledge regarding the crucial need for cyber security before moving into a creative realm of User Interface design. We connect with computer systems all over the world, every day. The course offers a vibrant insight into the planning, design and creation of User Interfaces. From diverse project methodologies to colours that connect emotionally, down to the minute details found within design principles, learners will see through a project from start to finish, considering carefully along the way the impact of their decisions not just on the end-product, but the wider world. Learners will be inspired by the ever-changing world of data and how it is used, processed and analysed in order to identify new opportunities in a range of diverse industries. Students will develop key skills and understand processes that underpin the effective ways of working, considering the methods used to manipulate data in order to represent findings in a visually aesthetic way. By understanding how big data is playing a role in today's digital landscape, students will be challenged to identify the scope of what it has to offer in the future. We aim to develop happy, creative and successful learners that will flourish with skills and attitudes that are considered most important within the world of digital technology, preparing them for A-Level, level 3 BTECs or apprenticeships.

CHORLTON HIGH SCHOOL: CURRICULUM

Year Group	**11**		
Components	**Component 1:** • **Exploring User Interface Design Principles and Project Planning Techniques** **LEARNING AIMS:** - **A:** Investigate user interface design for individuals and organizations - **B:** Use project planning techniques to plan and design a user interface - **C:** Develop and review a user interface	**Component 2** **LEARNING AIMS:** - **A:** Investigate the role and impact of using data on individuals and organizations - **B:** Create a dashboard using data manipulation tools - **C:** Draw conclusions and review data presentation methods	**Component 3** **LEARNING AIMS:** • **A:** Modern technologies and their impact on organizations • **B:** Threats to digital systems and how an organization can manage them • **C:** Responsible, legal and ethical use of data • **D:** Planning and communication in digital systems
Rationale/ Narrative	Students have completed all coursework for Component 1. Students will begin with Component 2 in Autumn and complete this by Spring. From Spring onwards, students will focus on Component 3 theory and revision in preparation for their external assessment. **2019/20** Students covered aspects of component 1 & 3 during their common term in year 9 (C1A, C3B). Students then moved onto investigating user interface designs in greater depth and the role and impact of data on both individuals and organizations (C1A, C2A). This gave students a broad understanding of the digital landscape prior to moving onto developing and planning projects. Following on from investigating how data is used, students began looking at ways in which data can be used via manipulation tools (C2B). Due to distanced learning, looking and working with data manipulation tools was not the most viable option, so Students began looking at project planning techniques and how to design and develop a user interface, this has taken the students to the end of their academic year (C1B, C1C). **2020/2021** Students will be beginning their coursework, completing both Component 1 & 2 by the end of the year. Students have built up a foundation of knowledge during their first year studying the course, despite distanced learning that has taken place. Students will begin the year by recapping content covered during distanced learning, using baselines assessment to judge understanding. Students will use their knowledge gained from Year 9 alongside a deeper understanding from lessons taught in Autumn to complete C1A Coursework. In Spring, Students will complete the remainder of their coursework for Component 1 after covering both learning aims (C1B, C1C) at greater depth building upon knowledge and understanding from Year 9. The data from their baseline assessment will then provide a short term framework for Autumn 2 when students begin their coursework for Component 2 (which will include the content that was delivered during Distanced Learning). In Spring 1, students will revisit Learning Aim A which they covered in depth during Year 9 and complete their coursework for the C2A. Students will then spend summer looking at C2B & C completing their final piece of coursework during Summer 2.		

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

CHORLTON HIGH SCHOOL: CURRICULUM

KNOWLEDGE	**Focus: Component 2 Learning Aim A** First 2 weeks finishing off Component 1 LAC In Spring 2, Students will revisit Component 2 from what they learnt in year 9 and build upon their knowledge of data. Students will work with pre-populated data sets and produce a report on the collection, presentation and interpretation of data as part of their coursework. **Teaching Content** • Data and information: meaning, structure, context and processing • How to present information: text, numbers, tables, graphs/charts and infographics • Making data suitable for processing: validation: range, type, look up, presence and length checks and verification: proofreading and double entry • Collecting data: data collection methods, data collection features and big data	**Focus: Component 2 Learning Aim B** In Summer 1, Students will learn about data manipulation tools and work with data to create a fully efficient and comprehensive dashboard as part of their coursework. **Teaching Content** • Data manipulation methods: importing data and text to columns, formulae and decision making functions • **Data manipulation methods**: lookup functions and count functions • **Data manipulation methods**: logical operations/sorting, using outlines and string operation functions • **Data manipulation methods**: filtering • Other processing methods: absolute and relative cell referencing • Other processing methods: macros, multiple and linking worksheets and alternative views	**Focus: Component 2 Learning Aim C** In Summer 2, Students will assess the effectiveness of their dashboard (created in previous term) presentation of data, draw conclusions and review the data presentation methods used as part of their coursework. **Teaching Content** • Drawing conclusions: e.g. trends, patterns, anomalies and possible errors • Making recommendations: e.g. who to target advertisements at, where to deploy staff and how to adapt transport schedules • The impact of presentation: information being misinterpreted, information being bias and inaccurate conclusions being made **Learning aim C: assessment practice** **Component 2: Learning aim B and C: formal assessment**	**Recap on Component 3 Theory prep for exam** **A1 Modern technologies** Understand how and why modern technologies are used by organisations and stakeholders to access and manipulate data, and to provide access to systems and tools in order to complete tasks. Learners should understand the implications of these tools and technologies for organisations and stakeholders. **A2 Impact of modern technologies** Learners should understand how modern technologies impact on the way organisations perform tasks. Learners should understand how technologies are used to manage teams, to enable stakeholders to access tools and services, and to communicate effectively. Learners should understand the positive and negative impact that the use of modern technologies has on organisations and stakeholders. **B1 Threats to data**	**Recap on Component 3 Theory prep for exam** **B3 Policy** Learners should understand the need for and nature of security policies in organisations. They should understand the content that constitutes a good security policy and how it is communicated to individuals in an organisation. To ensure that potential threats and the impact of security breaches are minimised, learners should understand how procedures in security policies are implemented in organisations. **C1 Responsible use** Learners should consider the responsible use of digital systems, including how systems and services share and exchange data as well as the environmental considerations of increased use. **C2 Legal and ethical** Learners should understand the scope and purpose of legislation (valid at time of delivery) that governs the use of digital systems and data, and how it has an impact on the ways in which	

	• Why quality is important: source, accuracy, age, completeness, amount of detail, format/presentation and volume • Who uses data modelling: types of sectors and data modelling in decision making • Threats: privacy, fraud, targeting vulnerable groups and inaccurate data **Learning aim A: assessment practice** **Component 2: Learning aim A: formal assessment**	• Other processing methods: conditional formatting • (Showing information summaries: totals, counts and percentages) • Breaking information down: sales breakdowns, departmental breakdown, time allocation and budget allocations • Presentation methods – session 1: form controls, graphs/charts, pivot tables, conditional formatting and select data/range • Presentation methods – session 2: form controls, graphs/charts, pivot tables, conditional formatting and select data/range • Presentation features: font size/style/colour, cell borders/shading, graphics, axis label and titles **Learning aim B: assessment practice**		Learners should understand why systems are attacked, the nature of attacks and how they occur, and the potential impact of breaches in security on the organisation and stakeholders. **B2 Prevention and management of threats to data** Learners should understand how different measures can be implemented to protect digital systems. They should understand the purpose of different systems and how their features and functionality protect digital systems. Learners should understand how one or more systems or procedures can be used to reduce the nature and/or impact of threats.	organisations use and implement digital systems. Learners should understand the wider ethical considerations of use of technologies, data and information, and organisations' responsibilities to ensure that they behave in an ethical manner. **D1 Forms of notation** Learners should be able to interpret and use standard conventions to combine diagrammatical and written information to express an understanding of concepts. Including: data flow diagrams, flowcharts, system diagrams, tables, written information.	

CHORLTON HIGH SCHOOL: CURRICULUM

SKILLS	. Evaluation skills . Metacognitive practice . Exam technique . Identifying and selecting information . Breaking down key information - Data manipulation - Spreadsheet formulae - Security	. Evaluation skills . Metacognitive practice . Exam technique . Identifying and selecting information . Breaking down key information - Data manipulation - Spreadsheet formulae - Security	. Evaluation skills . Metacognitive practice . Exam technique . Identifying and selecting information . Breaking down key information - Evaluation skills - Recommendations - Conclusive	• Evaluation skills • Metacognitive practice • Exam technique • Identifying and selecting information • Breaking down key information		
ASSESSMENTS	• Baseline Test – content covered during year 9 - **KAP** • **Learning Aim A Practice assessment (Theory) – Progress Test – KAP** • **Learning Aim A Formal Assessment Report**	• **Learning Aim B Practice Assessment** • End of Learning Aim B MS Form **KAP – (*Identify knowledge gaps before Summer 2 & Formal Assessment of Learning Aim B)***	• Dashboard review Progress test **KAP** • **Learning Aim B & C Formal Assessment - SUMMER KEY ASSESSED PIECE 4**	• External exam • Feb Checkpoint • Feedback from first sitting of external exam (misconceptions addressed)	• Walking talking mock x 2 • External exam	