THE BROMFORDS SCHOOL

ACHIEVE ENRICH PREPARE

The Bromfords School

Computing Department.

Intent of Curriculum

	The Bromfords School	ICT & Computing Department.

The intent of ICT & Computing at Bromfords is to equip pupils to use computational thinking and creativity to understand the world and how computing is changing its possibilities; to explore the use of information and technology in society and organisations and the impact this is having on individuals, communities, workplaces and the wider world; to develop confident, digitally literate students who understand how to navigate an increasingly technology driven world.

Achieve:

As pupils progress they will develop their knowledge of computational thinking which will enable them to solve problems, create increasingly complex programs and develop their understanding of how computing works and how it is changing and impacting the world. They will also develop their digital literacy and key creative and transferable IT skills.

Enrich:

The application of knowledge and understanding to current global developments and needs in computing, creative design and business ICT use within the classroom and through experiences of real-life application. Students will be digitally literate with a range of transferable skills that they can apply to life in school and beyond.

Prepare:

Learners will be have a responsible attitude towards their interactions through technology and be equipped to adopt a life-long learning approach. Our students will be digitally literate armed with a range of skills and knowledge that are transferable across the curriculum and into employment. In Years 7 and 8 students will develop a holistic knowledge of computing and ICT in order to allow them to specialise in either area moving forward into their Key Stage 4 and 5 studies.

Department: ICT & Computing	Curriculum Map What does ICT & Computing at Bromfords look like?					
Entry KS2	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**Post-16**
Knowledge: Upon accessing the Computer Science curriculum from our feeder primary schools, it has been ascertained that their KS2 curriculum covered a range of topics that may include – Programming basics using scratch, E-Safety, Digital literacy and use of digital communication. - Be able to apply computational thinking when solving problems by being able to break down and solve a problem. - Basic understanding of data representation such as binary numbers.	Knowledge: -Data representation -How to use digital technology appropriately. - The basics of a computer system. - Recognise the importance of humans and technology communicate Skills: -Recognised online dangers - Identify the key components that exist inside a computer and computational thinking.	Knowledge: -How to use smart search online when looking for genuine and reliable information. - Social engineering and how data impacts everyday life. -How to use digital technology appropriately. Skills: -Smart searching - Convert between different number systems. - Create simple programs. - Website development	Knowledge: Computer Science -Networks - Convert between different number systems. - Create simple programs. - Online safety -The Internet legislation -System Architecture -Cyber security -Databases - Data science Skills: -Use Computational thinking to develop advanced programs. - Able to analyse data with the use of data visualisation.	Knowledge: Computer Science -The structure of a Computer Processing Unit - How data is represented by computers. - Different types of networks that exist and the hardware required to set them up. -Boolean logic -Networking Skills: -Explain how various components of CPU function. - Design a network with the correct hardware -Python programming	Knowledge: Computer Science -How to design and implement complex algorithms - Compare the use of search and sorting algorithms. - Boolean logic and truth tables. -Network and security -Exams revision Skills: -Programming skills enhanced to be able to create complex programs.	Knowledge: The post 16 qualification is an OCR qualification. It is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT, providing them with the opportunity to enter an apprenticeship, move directly into employment, or progress to a related Higher Education (HE) course. As a school, we are on the Application Developer flight path. This comprises of: -OCR Level 3 Cambridge Technical Introductory Diploma in IT (with specialist

						pathways) (360 GLH) -OCR Level 3 Cambridge Technical Diploma in IT (with specialist pathways) (720 GLH)
Enrichment, Careers, Real-world Experience.	- Coding club with Code.org - Anti-Bullying VR	-Coding club with Small Basics and Python - Computer Science for Fun (STEM)	-**Royal Institution (Ri) Online Computer Science Masterclasses** - Visit to "The National Museum of Computing" to inspire future generations of computer scientists.		- Little Man Computer (Peter Higginson)	-Real world employment to conduct feasibility study.

- Careers & Real-World: Data scientist, Software tester, Web developer, Systems analyst, Business analyst, Product manager, Network architect, Software engineer, Software developer, web designer, Nanotechnologist, Network engineer, Telecommunication researcher, Game designer UX designer.

Year 7 – Intent:

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Scheme of work: Clear messaging in Digital media **Learning Intent:** Understanding the broad spectrum of online safety and applying skills that they may have previously learnt as well as those learnt in the unit. -School System -E-Safety (Online safety and Online reputation) -Choose search terms relating to a particular issue -Plan a poster to clearly convey a message	**Scheme of work:** Intro to programming – SCRATCH **Learning Intent**: The aim of this unit is to build learners' confidence and knowledge of the key programming constructs. -Compare how humans and computers understand instructions -Sequence of instructions -Variables -Conditions -Iterations	**Scheme of work:** Networks **Learning Intent**: This unit begins by defining a network and addressing the benefits of networking, before covering how data is transmitted across networks using protocol. - Define what a computer network is/how data is transmitted between computers across networks -Define protocols -Hardware for connectivity -Wired and wireless connections -Internet/www -Components of servers	**Scheme of work:** Spreadsheets **Learning Intent**: Introduction to the use of spreadsheets (analytical modelling). Making use of: -Formatting - Calculations -Functions -Charts and Graphics.	**Scheme of work:** Using media - Gaining support for a cause **Learning Intent:** During this unit, learners develop their understanding of information technology and digital literacy skills. They will use the skills learnt across the unit to create a blog post about a real-world cause that they would like to gain support for. -Features of word -Licencing appropriate images -The credibility of sources -Research and plan Blogs	**Scheme of work:** Intro to programming – Code.org **Learning Intent**: The aim of this unit is to build on from their understanding of SCRATCH programming by learners how to: -Create their own subroutines -develop their understanding of decomposition -Learn how to create and use lists -Build upon their problem-solving skills
Measuring impact through:					
• **Class tasks** • **Homework** • **End of Unit Assessment.**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**

Year 8 – Intent:

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Scheme of work: Media- Vector Graphics **Learning Intent:** This unit offers learners the opportunity to design graphics using vector graphic editing software. Learners will be able to better understand the processes involved in creating such graphics and will be provided with the knowledge and tools to create their own. -Using tools to draw and modify shapes -Explain that vector graphics are made up of paths. -Choose a project and plan a design -Explain the difference between vector and bitmap images	**Scheme of work:** Arcade **Learning Intent:** The Arcade Games unit is designed to give students some theory knowledge and some practical programming skills related to the Arcade Game industry. It will allow them to learn the following 1. a greater understanding of the technology world 2. Understand how human emotions are used in media 3. Development of logical actions 4. Problem solving 5. Develop resilience within their character 6. Develop technical skills in computer science including block coding, debugging, graphics, screen positioning	**Scheme of work:** Databases **Learning Intent:** Introduce Database to students as a file management concept for businesses: -Tables -Primary keys -Forms -Queries -Reports	**Scheme of work:** Mobile App Development **Learning Intent:** This unit aims to take the learners from designer to project manager to developer in order to create their own mobile app. Using App Lab from code.org, learners will familiarise themselves with the coding environment and have an opportunity to build on the programming concepts they used in previous units before undertaking their project. -Identifying when a problem needs to be broken down. -Identify and fix common coding errors -Applying decomposition -Use of sequencing, selection, user input, variables and evaluation.	**Scheme of work:** Layers of computing systems. **Learning Intent:** This unit takes learners on a tour through the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of. -General purpose computing system vs purpose-built device -Functions of hardware components -Logic gates -Artificial intelligence and machine learning	**Scheme of work:** Python programming. **Learning Intent:** This unit introduces learners to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic operations, randomness, selection, and iteration.

	and event programming.				
Measuring Impact through:					
• **Class tasks** • **Homework** • **End of Unit Assessment.**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**	• **Class tasks** • **Homework** • **End of Unit Assessment**

Year 9 – Intent: COMPUTER SCIENCE

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1A-Scheme of work: Python programming with sequence of Data **Learning Intent:** This unit introduces learners to how data can be represented and processed in sequences, such as lists and strings. The lessons cover a spectrum of operations on sequences of data, that range from accessing an individual element to manipulating the entire sequence.	**Scheme of work:** Online Safety **Learning Intent:** By the end of this online safety module, students should be able to: -Define and recognise online risks -Understand the consequences of engaging in risky behaviour -Privacy awareness -Critical thinking and online media -Cyber security basis Safe social media use -Digital citizenship and online rights -Reporting and seeking help -Practice responsible screen time management.	**2A -Scheme of work:** Applying programming skills with physical computing **Learning Intent:** This unit applies and enhances the learners' programming skills in a new engaging context: physical computing, using the BBC micro:bit. In the first half of the unit, learners will get acquainted with the host of components built into the micro:bit, and write simple programs that use these components to interact with the physical world.	**Scheme of work:** Website Development **Learning Intent:** The aim of this course is to introduce year 9 students to the fundamentals of web development using Adobe Dreamweaver. By the end of this course, students should be able to create basic websites, understand HTML and CSS, and apply design principles to their web projects. -Introduction to web development -HTMl fundamentals -CCS Styling -Responsive web design -Dreamweaver feature	**Scheme of work:** Networks **Learning Intent:** To develop understanding of network design and system security: -Networks and topologies - Wired and wireless networks -protocols and layers Threats to computer systems and networks -Identifying and preventing vulnerabilities	**Scheme of work:** Systems architecture **Learning Intent:** This unit takes learners on a tour through the different layers of computing systems: from programs and the operating system, to the physical components that store and execute these programs, to the fundamental binary building blocks that these components consist of. The aim is to provide a concise overview of how computing systems operate. -Computer systems and system software -Introduction to the CPU

1B-Scheme of work: Introduction to Cyber security **Learning Intent:** This unit takes learners on a journey of discovery of techniques that cybercriminals use to steal data, disrupt systems, and infiltrate networks. The learners will start by considering the value their data holds and what organisations might use it for. They will then learn about social engineering and other common cybercrimes, and finally look at methods to protect against these attacks.	**2B-Scheme of work:** Data Science **Learning Intent:** In this unit, learners will be introduced to data science, and by the end of the unit they will be empowered by knowing how to use data to investigate problems and make changes to the world around them. Learners will be exposed to both global and local data sets and gain an understanding of how visualising data can help with the process of identifying patterns and trends.	**Scheme of work:** Further Python programming **Learning Intent:** This unit builds on the introduction lessons from previous units. The lessons cover a spectrum of operations on sequences of data, that range from accessing an individual element to manipulating the entire sequence.	**Scheme of work:** IT and the world of work **Learning Intent:** The aim of this course is to introduce year 9s students to the impact of Information Technology (IT) on the world of work. Students will explore how IT has revolutionalised various industries and job roles, gain an understanding of the digital skills required in the modern workplace, and consider future career opportunities in the IT sector. -Introduction to IT and the world of work -IT in Different industries -Digital skills for the worklace -IT careers and careers path -Preparing for the future	**Scheme of work:** Online Safety **Learning Intent:** By the end of this online safety module, students should be able to: -Define and recognise online risks -Understand the consequences of engaging in risky behaviour -Privacy awareness -Critical thinking and online media -Cyber security basis Safe social media use -Digital citizenship and online rights -Reporting and seeking help -Practice responsible screen time management.	-The FDE cycle -Main memory -Secondary storage -Computer specification Logic gates -Assembly language
Measuring Impact through:					
Assessment: • **End of topic test**	**Assessment:** • **End of topic test**	**Assessment:** • **End of topic test**	**Assessment:** • **Practical activity**	**Assessment:** • **End of topic test**	**Assessment:** • **Practical activity**

Year 10– Intent: COMPUTER SCIENCE

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Scheme of work: **Boolean logic, data and programming** Links to KS4: GCSE Computer Science Section 1.2, 2.1 & 2.4 **Learning Intent:** To develop the understanding of logic gates and Boolean logic to programs and develop understanding on the use of different ways to use data: E-Safety 2.4.1 Boolean logic 1.2.3 Units 1.2.4 Data storage • Numbers 2.1.1 Computational thinking • Practical programming	**Scheme of work:** **Data storage and Algorithm design** Links to KS4: GCSE Computer Science Section 1.1, 1.2 & 2.1 **Learning Intent:** Further develop programming skills and apply this to computational thinking in algorithm design. 2.1.1 Computational thinking • Practical programming 2.1.2 Designing, creating and refining algorithms • Practical programming 1.2.4 Data storage • Characters • Images • Sound • Compression 1.1.1 Architecture of the CPU 1.1.2 CPU Performance	**Scheme of work:** **Architecture of the CPU, Embedded systems and Storage** Links to KS4: GCSE Computer Science Section 1.1, 1.2 & 2.2 **Learning Intent:** Final investigation of the CPU and develop understanding of related systems such as storage and embedded systems, this will link in with programming fundamentals: 1.1.2 CPU Performance 1.1.3 Embedded systems 1.2.1 Primary storage (Memory) 1.2.2 Secondary storage 2.2.1 Programming fundamentals	**Scheme of work:** **Networks and Wireless systems** Links to KS4: GCSE Computer Science Section 1.3 & 2.2 **Learning Intent:** Develop understanding in network design and how data is transferred across networks. Final preparations for the NEA major project will occur here in the form of additional programming techniques: 1.3.1 Networks and topologies 1.3.2 Wired and wireless networks, protocols and layers 2.2.3 Additional programming techniques	**Scheme of work:** **NEA Part 1** Links to KS4: GCSE Computer Science Section 2.1 & 2.4 **Learning Intent:** Major project for the topic, this will apply learned programming skills to complete a large project spanning many weeks. This is the planning to creation stage. 2.1.2 Designing, creating and refining algorithms • Planning/ design stage 2.1.3 Searching and sorting algorithms • Planning/ design stage 2.2.1 Programming fundamentals • Planning/ design stage 2.2.2 Data types Planning/ design stage	**Scheme of work:** **NEA Part 2** Links to KS4: GCSE Computer Science Section 2.1, 2.5 & NEA **Learning Intent:** Continuation of major project. This covers the creation, testing, reflection and evaluation stage: 2.1.3 Searching and sorting algorithms • Creation/ improvements 2.2.1 Programming fundamentals • Creation/ improvements 2.3.2 Testing Creation/ improvements
Measuring Impact through:					
Assessment: **End of topic test**	**Assessment:** **End of topic test**	**Assessment:** **End of topic test**	**Assessment:** **End of topic test**	**Assessment:** **Practical activity**	**Assessment:** **Practical activity**

Year 11– Intent: COMPUTER SCIENCE

Scheme of work: **Network and system security** Links to KS4: GCSE Computer Science Section 1.4, 1.5 & 1.6 **Learning Intent:** To develop the understanding of network and system security and its impact on both businesses and users: 1.4.1 Threats to computer systems and networks 1.4.2 Identifying and preventing vulnerabilities 1.5.1 Operating systems 1.5.2 Utility software 1.6.1 Ethical, legal, cultural and environmental impact	**Scheme of work:** **Defensive design and programming language** Links to KS4: GCSE Computer Science Section 2.3 & 2.5 **Learning Intent:** To develop understanding in how programming languages are used to software and security protocols: 2.3.1 Defensive design 2.3.2 Testing 2.5.1 Languages 2.5.2 The Integrated Development Environment (IDE)	**Scheme of work:** **Practical programming revision** Links to KS4: GCSE Computer Science Section 2 & 2.1 **Learning Intent:** To revisit programming skills to help prepare for the section 2 exam: 2.1.3 Searching and sorting algorithms Revise all practical skills from section 2	**Scheme of work:** **Revision** Links to KS4: GCSE Computer Science Section 1 **Learning Intent:** To revisit theory to help prepare for the section 1 exam: Revising all of section 1 & 2	**Scheme of work:** **Exam period/ study time** Links to KS4: GCSE Computer Science Section 1, 2 & exams **Learning Intent:** Final opportunity to help students revise and fill knowledge gaps in preparation of both sections 1 & 2 exams: Final revision opportunities of sections 1 & 2
Measuring Impacts through:				
Assessment: **End of topic test**	**Assessment:** **End of topic test**	**Assessment:** **Practical activities and topic tests**	**Assessment:** **Model exam questions** **Final exams (if done this half term)**	**Assessment:** **Model exam questions** **Final exams (if not done already)**

Year 12– Intent: Year 12 Cambridge Technical (Single award- Sept 2023)

Autumn 1 – Unit 1 / Unit 2	Autumn 2 – Unit 1 / Unit 2	Spring 1- Unit 1 / Unit 2	Spring 2 & Summer 1– Unit 1 / Unit 2	Summer 2 – Unit 8
INTENT: To gain an understanding of IT technologies and practices is essential for IT professionals. To understand the uses of information in the public domain, globally, in the cloud and across the internet, by individuals and organisations				INTENT: To understand and use various project planning skills and techniques, thereby enabling you to become more effective in the workplace.
Key topics covered: • Unit 1 ○ Computer hardware ○ Computer components ○ Connectivity methods ○ Types of computer systems • Unit 2 ○ Holders of information ○ Types of information storage media ○ Types of information access and storage devices ○ The internet ○ WWW technologies ○ Information formats ○ Information styles ○ Information classifications	Key topics covered: • Unit 1 ○ Communications hardware ○ Hardware troubleshooting ○ Number systems ○ Number conversion ○ Types of software ○ Operating systems ○ Protocols ○ Types of servers • Unit 2 ○ Quality of information ○ Information management ○ Data vs Information ○ Categories of information used by individuals / organisations ○ Stages of data analysis ○ Data analysis tools ○ Information system structure ○ UK legislation	Key topics covered: • Unit 1 ○ Networking characteristics ○ Connectivity methods ○ Communication skills ○ Personal attributes ○ Job roles ○ Professional bodies and industry certification • Unit 2 ○ Global information protection legislation and regulation ○ Green IT ○ Information sources ○ Data types ○ Data flow diagrams ○ Impacts affecting the flow of information ○ Principles of information security ○ Risks in information security	Key topics covered: • Unit 1 ○ Ethical issues ○ Operational issues ○ Threats ○ Digital security ○ Safe disposal of data and computer equipment • Unit 2 ○ Impact of risks on holders of information ○ Protection measures ○ Case study	Key topics covered: • Unit 8 ○ Project methodologies ○ Project life cycle ○ Project issues ○ Documentation
Measuring impact through:				
External exams	External exams	External exams	External exams	Moderated Projects

Year 12– Intent: Year 12 Cambridge Technical (Double award- Sept 2023)

Autumn 1 – Unit 22 / Unit 17	Autumn 2 – Unit 22 / Unit 17	Spring 1- Unit 22 / Unit 17	Spring 2 & Summer 1 – Unit 3	Summer 2 – Unit 12 & 9
INTENT: To learn what Big Data is, how it can be gathered, analysed and used by businesses. To learn about the Internet of Everything (IoE) and how it is used			INTENT: To gain knowledge and understanding of the range of threats, vulnerabilities and risks that impact on both individuals and organisations.	INTENT: To broaden knowledge and understanding of the wider potential of mobile technologies and its consequences to people and businesses. To learn about different product design methodologies and the role of the product development life cycle.
Key topics covered: • Unit 22 ○ What is big data ○ Use of big data ○ Impact on organisations ○ Infrastructure challenges posed by big data ○ Assignment 1 • Unit 17 ○ Internet of everything what is it ○ Where IOE is used ○ Applications of IOE ○ Global impacts ○ Four pillars of IOE ○ IOE people and how they connect ○ Converting data into information ○ Information gathering devices	Key topics covered: • Unit 22 ○ Big data sources ○ Big data risks ○ Preparing big data for analysis ○ Processing big data ○ Evaluating results ○ Assignment 2 • Unit 17 ○ Connectivity ○ Networked connections ○ Security issues ○ Assignment 1 ○ Repurposing technologies to extend scope of the IOE ○ Feasibility studies	Key topics covered: • Unit 22 ○ Presenting results ○ Target audience consideration ○ Big data recommendations ○ Assignment 3 • Unit 17 ○ Assignment 2 ○ Business proposals ○ Pitch ○ Stakeholder considerations ○ Assignment 3	Key topics covered: • Unit 3 ○ Cyber security controls ○ Responding to an incident ○ Cyber security incident report ○ Cyber security aims ○ Types of cyber security incidents ○ Threats to cyber security ○ Types and motivations for attackers ○ Targets for cyber security ○ Impacts of cyber security incidents ○ Other considerations for stakeholders ○ Revision for exam	Key topics covered: • Unit 12 ○ Uses of mobile technologies ○ Connectivity ○ Current and potential uses ○ Assignment 1 • Unit 9 ○ Product development methodologies ○ Product development lifecycle ○ Assignment 1

○ Process and Processing capabilities				
Measuring impact through:				
Moderated Projects	Moderated Projects	Moderated Projects	External exams	Moderated Projects

Year 13– Intent: Cambridge Technical (Single award - Sept 2023)

Autumn 1 – Unit 6&8 / Unit 21	Autumn 2 – Unit 6&8 / Unit 21	Spring 1- Unit 6&8 / Unit 21	Spring 2 - Unit 6&8 / Unit 21
INTENT: To develop skills in the designs for an application and how users will interact with it. To understand and use various project planning skills and techniques. To develop skills in research, design and produce an interactive, responsive website that is specific to a client's needs, culminating in presenting the concept of the website using the prototype to the client.			
Key topics covered: • Unit 6 & 8 ○ Application development models ○ Project methodologies ○ Project life cycle ○ Assignment 1 • Unit 21 ○ Web design skills ○ Components of web design	Key topics covered: • Unit 6 & 8 ○ Methods of gathering user requirements ○ User requirements ○ Feasibility study ○ Initiation phase ○ Use of design diagrams • Unit 21 ○ Assignment 1 ○ Execution phase ○ Web design skills ○ Databases	Key topics covered: • Unit 6 & 8 ○ Pitch content ○ Pitch delivery ○ Assignment 3 ○ Client meetings / presentations ○ Prototyping ○ Aspects of user feedback • Unit 21 ○ Web design skills ○ Evaluating against client needs ○ Assignment 2	Key topics covered: • Unit 6 ○ Assignment 4 ○ Unit 21 & 8 ○ Assignment 2 • Unit 21 & 8 ○ Assignment 2 ○ Presenting the solution ○ Future security and maintenance considerations ○ Assignment 3
Measuring impact through:			
Moderated Projects	Moderated Projects	Moderated Projects	Moderated Projects

Year 13– Intent:

<table>
<tr><th>Autumn 1 – Unit 12 / Unit 13 / Unit 9</th><th>Autumn 2 – Unit 12 / Unit 13 / Unit 9</th><th>Spring 1- Unit 12 / Unit 13/ Unit 9</th><th>Spring 2 Unit 13 / Unit 9</th></tr>
<tr><td>Links to KS4:</td><td>Link to KS4:</td><td>Link to KS4:</td><td>Link to KS4:</td></tr>
<tr><td colspan="3">INTENT: To broaden knowledge and understanding of the wider potential of mobile technologies and its consequences to people and businesses. To learn about different product design methodologies and the role of the product development life cycle. To understand digital marketing as a concept and to explore the possible impacts, both positive and negative, that may be generated by the use of social media as a digital marketing tool</td><td>INTENT: To understand digital marketing as a concept and to explore the possible impacts, both positive and negative, that may be generated by the use of social media as a digital marketing tool. To learn about different product design methodologies and the role of the product development life cycle.</td></tr>
<tr><td>Key topics covered:
Unit 12
Uses of mobile technologies
Ethical
Assignment 2
Investigation business requirements
Planning
Unit 13
Role of marketing within a business
Social media
Digital marketing strategies
Digital marketing life cycles
Assignment 1
Unit 9
Product development methodologies
Requirements analysis phase
Design phase
Assignment 2</td><td>Key topics covered:
Unit 12
Planning constraints
Technology business plan
Assignment 3
Promoting the mobile technological solution
Feedback analysis
Predicting consequences of change
Unit 13
Research
Data as a resource
Use of data
Communication
Legislation and business policy and practice
Ethical and moral issues
Assignment 2
Unit 9
Unit testing
Integration of testing
Use of results
Implementation logs and plans</td><td>Key topics covered:
Unit 12
Feedback analysis
Predicting consequences of change
Assignment 4
Unit 13
Social media channels
Potential positive and negative outcomes
Features of a social media marketing campaign
Campaign considerations
Effectiveness of digital marketing campaigns
Assignment 3
Unit 9
Acceptance testing
Maintenance phase
Assignment 4</td><td>Unit 13
Assignment 4
Unit 9
Assignment 4</td></tr>
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	○ Assignment 3		
Measuring impact through:			
Moderated Projects	Moderated Projects	Moderated Projects	External exams