

**Levenshulme High School – Curriculum Map – Computing and Business**

		Term 1		Term 2		Term 3	
	No. of Weeks KS3 have 1 lesson a week	7	7	6	6	13	
	<b>Topic Title and NC link</b>	<b>Introduction to Computer systems NC 7, 9</b>		<b>Modelling NC 1, 7</b>		<b>Scratch NC 1, 2,3</b>	
<b>Year 7</b>	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>How to log on.</p> <p>How to save documents.</p> <p>How to use Onedrive.</p> <p>How to create and organise folders</p> <p>How to create documents for audience and evaluate.</p> <p>How to be safe on the internet</p> <p>The importance of a strong password</p> <p>What the different software are used for with examples.</p> <p>Different hardware devices relating to computing.</p>	<p>How to use tools within the ribbon in a range of applications in MS Office.</p> <p>Use MS Powerpoint to create a presentation</p> <p>Use Ms Word to write a letter</p> <p>How to use the tools within Outlook to send and receive emails.</p> <p>How to use snippet and print screen</p> <p>How to use Copy, Cut and paste.</p> <p>How to use online email systems</p>	<p>What a Spreadsheet is and who would use it.</p> <p>Know the key terminology, row, column, cell.</p> <p>The four arithmetic operators (+, -, / and *) and how they are used.</p> <p>The layout of a spreadsheet is important for audience – focussing on correct headings.</p>	<p>What a condition is in a statement.</p> <p>Where list boxes are used and how they can make data entry more manageable/accurate.</p> <p>MS Excel can include basic programming to allow actions to be done quicker.</p> <p>What a Macro is and how is can be used to store instructions to make actions quicker.</p>	<p>What the x and y coordinates do in relation to sprite movement.</p> <p>What a variable is and know that it is something that can be changed.</p> <p>What a condition statement is in relation to Scratch</p>	<p>What a variable is and how it is used.</p> <p>Know how loops are used using repeat.</p> <p>How instructions are written and used in systems.</p>

	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Log on, log off, restart and shutdown a computer</p> <p>Create and use a folder structure internally and externally with appropriate file names.</p> <p>Use mouse and keyboard correctly</p> <p>Use keyboard specifics accurately, E.g. shift, capslock numlock etc.</p>	<p>Create a publication that incorporates the skills that they have learnt</p> <p>Use formatting tools within Powerpoint. E.g shapes, textbox, colours, fonts, grouping etc.</p> <p>Write a properly formatted letter using the tools within Office.</p> <p>Send, receive, reply and forward an appropriately written email.</p> <p>Use tools within the operating system to use technology to support their learning.</p> <p>Log on to school emails remotely.</p> <p>Explain with examples the purpose of the software and how it can be used.</p>	<p>Write scenarios that include the correct use of the four operators.</p> <p>Write formulas that allow appropriate calculations to happen.</p> <p>Be able to solve mathematical problems that include a written scenario.</p> <p>Use the tools and formatting features to create a basic working spreadsheet for a given audience.</p> <p>Give examples of who would use a Spreadsheet and be able to demonstrate this</p>	<p>Use conditional formatting to write a statement in Excel that produces a given outcome based on the whether or not the condition has been met.</p> <p>Create list boxes to allow user to enter data.</p> <p>Create and use and use a Macro to allow actions to take place quicker. (all for a purpose) Basic formulas</p> <p>Use the formula and formatting features within the ribbon.</p> <p>Use Powerpoint to present their models explaining how their model solves a problem</p>	<p>Design a game that is appropriate to audience</p> <p>Write a sequence of accurate instructions to solve a problem.</p> <p>Create variables within Scratch and use these to manipulate their sprites.</p> <p>Use conditions within Scratch to change the movement of their Sprite</p> <p>Use the x and y co-ordinates to program the movement of their sprite.</p> <p>.</p>	<p>Use broadcast and receive to enhance game with levels.</p> <p>Use blocks that represent loops to keep an action continuing</p>
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	<p><i>Why are we doing this now?</i>  <i>How does it build on prior learning and prepare for knowledge and learning still to come?</i></p>	<p>Pupils need a secure knowledge base of computers and the uses of computers to allow them to use technology to support their learning.</p> <p>These skills will underpin the learning of all future topics as these skills will constantly be used when completing set work.</p> <p>Documents will be created in future units.</p> <p>E-safety will be a feature of future units – this will be constantly updated in relation to current events.</p>	<p>Pupils will send emails to their peers and their subject teachers across all subjects.</p> <p>The learning of how to use the tools will support their use of technology in all other subjects.</p> <p>MS Office is used to evidence learning in units – students will need to know how to use this.</p>	<p>Pupils need to understand the importance of correct layout and headings when creating systems. This will support the learning in design and coding units where pupils will be taught about audience and usability in relation to the software used.</p> <p>Future units will feature problem solving which is a life skill that pupils will need.</p>	<p>Understanding conditions is important as this underpins the learning of Computing. Also this will further support problem solving in general.</p> <p>Conditions will be used and retaught in coding units and the computational thinking unit. Pupils having this prior knowledge will support learning that be built upon.</p> <p>Pupils will have the opportunity to use spreadsheets in real life scenarios which relate to real life and will include a maths element. This will support wider learning when using mathematical operators.</p>	<p>Pupils will have a greater understanding of how conditions work which will support future units. Work from the spreadsheet unit will be built upon.</p> <p>As Scratch is about pupils using pre-set code to create a program, this unit will give pupils a secure coding base in preparation for future coding units where they will be asked to write their own code. Pupils will understand how this related to real life scenarios.</p>	
Year 8	<p><b>Topic Title and NC link</b></p>	<p><b>Computational thinking</b>  <b>NC 1, 2, 4, 5, 7</b></p>	<p><b>Python programming</b>  <b>NC 1, 2, 3, 6</b></p>	<p><b>HCI/UX</b>  <b>NC 6, 7</b></p>	<p><b>Image creation</b>  <b>NC 6, 7, 8</b></p>	<p><b>Internet</b>  <b>NC 1, 4, 5, 9</b></p>	<p><b>Fundamentals of computing</b>  <b>NC 4, 5, 6</b></p>
	<p><i>Pupils should know... (Core knowledge and concepts to learned)</i></p>	<p>That computers understand and work from instructions</p> <p>The difference between an action, a decision and a process.</p> <p>The importance of sequencing instructions to produce the correct outcome.</p>	<p>Programs are written in coding languages.</p> <p>Pupils will create their own programs.</p> <p>The different text based programs that are available to code</p>	<p>The importance of users when creating a platform</p> <p>How users link and interact with icons</p> <p>How users link and interact with images</p>	<p>What metadata is and how it works</p> <p>What copyright is and the importance of copyright.</p> <p>What will happen if copyright is broken.</p> <p>Careful planning for creating publications is important.</p>	<p>What the internet is.</p> <p>What a network is.</p> <p>How the internet works.</p> <p>Know how different people use the internet.</p> <p>Know how to search the internet effectively.</p>	<p>What physical components of computer systems do</p> <p>If a component of a computer is an input, output, storage or neither.</p> <p>The functions of a range of Computing components. This includes: CPU,</p>

			How actions can be repeated using loops	How human instinct reflects design.  How businesses use images and technique for advertising purposes.  How embedded systems are created with focus on user input.	How different audiences respond to different design techniques  Who would use Photoshop and how this relates to industry	What hardware used to connect to the internet.  The importance of using the internet safely.  How to connect to the internet using different devices.  How the basis of a computer network works  How the internet works globally How to use MS Word to create a report	motherboard, processor etc.  That computers understand binary.  Which form of media would have the highest file size.  What the physical components are that make up the internet  How the internet works in terms of data transfer
	<i>Pupils should be able to do... (Skills being developed)</i>	Break down problems into smaller sections.  Be able to write basic algorithms as a sequence of instructions  Create flow charts that include decisions  Create flow charts that solve a problem	Set data types to strings  Set data types to floats  Write 'if statements'  Setting conditions in the code  Create and explain a program of their choice that solves a problem.	Analyse current platforms and recognise design features.  Create a wire plan for a user designed system  Design and test icons for users to use  Design platforms  Test platforms  Create a static user interface	Insert images into Photoshop  Inserting shapes and change their sizes Use the blur tool  Use free transform  Use a range of advanced tools in Photoshop  Use the distortion tool Using a range of advanced tools in Photoshop	Draw a network with correct devices labelled.  Analyse how current networks work in relation to network speed.  Be able to use search criteria and search engines officially.  Be able to provide full examples of who uses the internet and how the internet supports social and business activity.	Calculate the number of bits, bytes, kb, mb and gb in relation to given problems.  Be able to convert between binary and denary and visa-versa.  Calculate denary to binary and binary to denary  Explain whether a device is an input or an output

				design for a given project.	<p>Creating publications and graphics aimed at different audiences</p> <p>Add metadata to an image.</p> <p>Explain the uses of Photoshop and how it relates to graphic design</p>		<p>Use drawing package to draw truth tables.</p> <p>Explain how the devices</p> <p>Use mouse and keyboard correctly</p> <p>Use keyboard specifics accurately, E.g. shift, capslock numlock etc.</p> <p>Save files correctly</p>
	<p><i>Why are we doing this now?</i></p> <p><i>How does it build on prior learning and prepare for knowledge and learning still to come?</i></p>	<p>Pupils will have built knowledge of a what a problem is and what a condition is from the modelling unit. This is covered in more depth and challenge in this unit. Pupils will be taught how to break down a problem which a fundamental skill in computing and is transferrable to other subjects. This will also prepare pupils for further study when writing their own programs using different languages.</p>	<p>Pupils will have the opportunity to write their own computer programs. This will allow them to be creative with code.</p> <p>This will support their learning of HTML and Visual Basic</p>	<p>Pupils will be confident in using IT systems, bot mobile and fixed. This unit will provide the opportunity for pupils to explore their thinking in terms of user interface. Pupils will be aware of techniques used and this will support them in their own planning and creating. HCI and UX design is a fast growing industry.</p>	<p>Pupils will have learnt about the importance of audience in the introduction to systems and modelling units. This will be further developed in this unit. In this unit pupils will study the importance of design and layout of publications and how this is important in terms of audience. Pupils will be given the opportunity to develop their creative ICT skills for design. This will support further learning into the HTML and enterprise unit. Pupils will also learn about how metadata is used on images and the security issues which links to e-safety. Pupils will also be aware of copyright which they will</p>	<p>Pupils will have an understanding of how data travels across a network. This will give pupils a firm understanding of how digital communication works. Having this knowledge will give pupils a greater understanding Computing concepts. Also, pupils will have an understanding of the internet in real life context.</p> <p>Pupils being able to search the internet accurately will allow them expand their use of the internet to support their learning across all subjects.</p>	<p>Pupils will be able to link knowledge from the network unit in terms of devices to have a better understanding of how they work. Pupils will have secured their arithmetic skills from the modelling unit to support their calculations. Pupils will also have gained a wider understanding of how systems work which will support usability. This will support future learning for GCSE subjects.</p> <p>Pupils will have the secure knowledge to support them in the</p>

					need for all areas of study.		use of devices in their life.
	<b>Topic Title and NC link</b>	<b>Cyber security 1, 5, 9</b>	<b>Enterprise/Media NC 7</b>	<b>Visual Basic NC 1, 2, 3, 6</b>	<b>Networking NC 1, 6</b>	<b>Computing / Office skills / Project</b>	
<b>Year 9</b>	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>The main principles of e-safety</p> <p>What cyber security is and how it is used</p> <p>How usernames and passwords can be guessed by hackers</p> <p>What social engineering is and how this works.</p> <p>That messages that are encrypted are more secure than non encrypted.</p> <p>What an encryption key is and the fundamentals of how key exchange works.</p> <p>The history of encryption and how it has been used over time.</p>	<p>How enterprise is used in society.</p> <p>What enterprising skills are.</p> <p>Where enterprising skills are used in real life situations.</p> <p>The difference between a product and a service</p> <p>What a business plan is</p> <p>How business create and advertise new products</p> <p>Will know what a storyboard is</p> <p>Will know what a script is and why it is used</p> <p>Careful planning for creating publications is important.</p> <p>How different audiences respond to different design techniques</p>	<p>What a decoder does</p> <p>What a compiler does</p> <p>How a program is executed</p> <p>Know the difference between coding and object orientated design</p> <p>What the tools are in Visual Basic</p> <p>How actions can be repeated using loops</p>	<p>The difference between a stand alone and a network computer.</p> <p>What a server is and how it works</p> <p>What the different network topologies are</p> <p>Know the difference between a LAN and a WAN</p> <p>Know the functions of the basic network devices</p> <p>Know what internet protocols are</p> <p>How data packets are sent over the internet</p> <p>How to use MS Software to present report.</p>	<p>Which pieces of software to use for the given task.</p> <p>How the DTP software links together</p> <p>How file structures are important.</p> <p>How Digital safety is important and how to be safe.</p> <p>How to use online forms</p> <p>How to write a CV</p> <p>How to use the internet to effectively search</p> <p>How to write reports digitally</p>	

	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Create a secure password.</p> <p>Use an encryption algorithm to decode a message.</p> <p>Write their own encryption algorithm to encrypt a message.</p> <p>Complete a key exchange scenario.</p>	<p>Think of a new business idea/product</p> <p>Decide of the best advertising strategy for their product</p> <p>Work with their peers on a project</p> <p>Write a business proposal and explain to an audience what their Business idea is and why it has been chosen.</p> <p>Create and present a Business idea to an audience using Enterprising skills.</p> <p>Self assess and accurately record enterprising skills that they have used</p> <p>Evaluate business idea</p> <p>Using a range of advanced tools in Photoshop</p> <p>Creating publications and graphics aimed at different audiences</p>	<p>Write sequences of instructions</p> <p>Break down a problem</p> <p>Create flow charts</p> <p>Run VB programs</p> <p>Compile code</p> <p>Execute code</p> <p>Using text boxes to input data</p> <p>Use labels to show results</p>	<p>Choose the appropriate topology for the given scenario</p> <p>Draw a LAN and WAN network</p> <p>Choose the correct software to design</p>	<p>Use all features of DTP software and be able to select the correct piece of software.</p> <p>Write and design an appropriate CV</p> <p>Use online forms for applications (to college in particular)</p> <p>Create publications that meet the need of the audience</p> <p>Create digital safety materials that highlight understanding and support fellow peers.</p> <p>Use the full search facilities to find specific information to support learning (focus on academic pieces)</p>
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	<p><i>Why are we doing this now?</i>  <i>How does it build on prior learning and prepare for knowledge and learning still to come?</i></p>	<p>Pupils will have learnt key internet safety points and will be taught how the technical aspects of this works.</p> <p>The unit will further support the learning in the network unit where data exchange is taught in more depth in relation to wider networks. Pupils will be able to use technology safely as they will have a greater understanding of how data exchange works. This knowledge will support their use of social media as they are able to use these more in year 9. Also, pupils will have further knowledge of how to protect themselves when using the internet for wider uses.</p>	<p>Pupils will have had the opportunity to be creative in previous units in years 7 and 8. They will have analysed audience needs in detail. This unit will allow them to further expand on this as they will think about audience when creating their product. They will be able to reflect on how they use enterprise skills which will promote confidence in their presentation, planning and oral communication. Pupils will use these skills when deciding their final end of KS3 project. These skills will support them as they approach their GCSEs and work experience.</p>	<p>Visual Basic is a high level piece of software. In this unit pupils will have the opportunity to build upon their coding skills using object orientated design. This brings together the audience, design and programming. Pupils will be able to extend their coding skills in Visual Basic as they will already have an understanding of coding structures that they learnt in Scratch, Python and HTML. They will be able to use their skills in writing conditions to create a working program that has been coded with a GUI.</p>	<p>This unit will build upon knowledge learnt in the internet unit and cyber security. In this unit pupils will have a greater understanding of how networks work in relation to every day device use.</p>	<p>This unit will cover a range of digital skills that will support them in their personal and academic life. These skills are essential to using technology effectively and safely. These will also support their transition in KS4.</p>	
<b>Year 10 IT</b>	<b>Topic Title and NC link</b>	<b>Design tools HCI</b>	<b>Data and Testing Spreadsheets</b>	<b>Complete Spreadsheet CA</b>	<b>Complete Spreadsheet CA</b>	<b>Data</b>	<b>Cyber Security</b>
	<i>Pupils should know...</i>	What types of design tools are available	The importance and difference between	<b>Pupils will complete their first CA</b>	<b>Pupils will complete their first CA</b>	How data is collected and how it used.	Will know all the different methods of cyber attacks.



	<p><i>(Core knowledge and concepts to learned)</i></p>	<p>and how they are used.</p> <p>How user input is important when designing.</p> <p>Know how HCI is used in embedded systems</p> <p>Know the hardware needed</p> <p>Know the resources needed in terms of memory and processing power</p> <p>Know the methods that the user can interact with an embedded system.</p>	<p>information and data.</p> <p>The numeric data types.</p> <p>What validation is and why it is important.</p> <p>Will know the range of validation tools used.</p> <p>Will know the range of verification rules.</p> <p>How and why spreadsheets are used.</p>			<p>How data is checked to be accurate.</p> <p>The storage needed to collect data. This includes internal storage and external storage.</p> <p>The importance of testing data/</p> <p>The methods used to test data.</p>	<p>The will know what social engineering is and how it can be harmful.</p> <p>They will know all the preventative methods used to prevent attacks.</p> <p>How to keep data secure and the laws around this.</p>
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Create: Flow charts Mind maps Visualisation diagrams Wireframes</p> <p>Produce a report stating what tools and resources are needed to create a working embedded system</p>	<p>Insert data into a spreadsheet and write validation rules to check for validity.</p> <p>Insert data into a spreadsheet and write verification rules to check for validity.</p> <p>Be able to select the appropriate format to represent data.</p>			<p>Create their own data for a purpose using their chosen data collection method</p> <p>Be able to explain their chosen data collection method.</p> <p>Be able to use the correct storage device to store the data and say why this is important.</p>	<p>Create a report to explain all the different types of cyber-attacks there are. They will be able to link this to real life examples.</p> <p>Write a report to list and explain all the preventative measures that can take place to stop an attack.</p>

			Create a working model using a range of spreadsheet tools.				Know how data and information can be physically protected.
	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge and learning still to come?</i>	<p>Pupils are learning what is required when creating a user interactive system. This is a fast growing industry and pupil will have wider learning of usability. This will lead of from the HCI unit in KS3</p> <p>Pupils will learn the technical requirements needed to create these systems and they will be able to relate this to their own real life use.</p>	<p>Pupils will build on spreadsheet skills that they have learnt in KS3. They will now use advanced features to create a modern functioning systems. This will support them in other areas of design and usability.</p>	This links in with submission date for the CA	This links in with submission date for the CA	Pupils will know the importance of collecting data and storing it. They will link this to their own use of data and how they store data and keep it safe.	Cyber security is an important part of every day life and attacks are becoming more prevalent. It is important that students know the details of this to fully support them into becoming safer digital users.
<b>Year 10 Business Studies</b>	<b>Topic Title and NC link</b>	<b>J204/1</b> <b>1.1 The role of business enterprise and entrepreneurship</b> <b>1.2 Business planning</b>	<b>1.3 Business ownership</b> <b>1.4 Business aims and objectives</b>	<b>1.5 Stakeholders in business</b> <b>1.6 Business growth</b>	<b>2.1 The role of marketing</b> <b>2.2 Market research</b>	<b>2.3 Market Segmentation</b> <b>2.4 The marketing mix</b>	<b>3.1 HR The purpose of human resources within business</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>What the purpose of a business is.</p> <p>Know what Enterprise is.</p> <p>How Business plans are used</p>	<p>Different types of business objectives</p> <p>What the different sectors of the economy are</p>	<p>The role of a stakeholder</p> <p>The difference between organic and external growth.</p>	<p>What secondary research is</p> <p>What primary research is</p> <p>How good market research affects the business</p>	<p>The 4ps are of the marketing mix and how they impact a business</p> <p>What the product life is and how this changes over time</p>	<p>The different organisational structures within a business.</p> <p>The importance of digital communication for a business</p>

		<p>What an entrepreneur is.</p> <p>Risks and rewards associated with starting a business.</p>	<p>External factors that can impact a business</p> <p>What the functional areas and roles are within a Business</p>	<p>The impacts on a business and how this affects the growth of the business.</p> <p>Further business language and terminology</p>	<p>The importance of good customer feedback</p> <p>What a customer profile is</p>	<p>Complex business language</p>	<p>How the process of interviewing and recruitment works including current legislation</p> <p>Motivational methods that a business has for its employees</p>
	<i>Pupils should be able to do... (Skills being developed)</i>	<p>Use business terminology correctly</p> <p>Using case studies to develop application skill.</p> <p>Focus on Planning and structuring responses to identify and explain questions.</p> <p>Developing connectives for analysis in relation to benefits and drawbacks, using BLT.</p>	<p>Development of interpreting case studies to develop application (To include data).</p> <p>Continue to focus on analyse questions that are more varied e.g consequences, impacts.</p> <p>Apply business knowledge to a scenario</p>	<p>Independently interpret case studies and identify key concepts for application.</p> <p>Write analytically and apply business knowledge to various case studies in a fluent manner.</p> <p>Use business terminology appropriately.</p> <p>Evaluate business information.</p>	<p>Gather primary and secondary research</p> <p>Gaining customer feedback</p> <p>Analysing product development</p> <p>Identifying customer profiles</p> <p>Completing market research to aid decisions</p> <p>Use business language effectively.</p> <p>Embedding the chain of reasoning for analysis in analyse questions.</p>	<p>Be able to create and describe a product life cycle</p> <p>Explain the use of the marketing mix to inform and implement business decisions.</p> <p>Interpretation of market data</p> <p>Use accurate and complex business language effectively.</p> <p>Apply business knowledge to a business case and evaluate impact to the business and its stakeholders.</p> <p>Reach judgement and justify conclusions.</p>	<p>Explain the influence of digital communication on business activity</p> <p>Have practical experience of the recruitment process through completing CVs, job applications and mock interviews.</p> <p>Describe financial and non-financial methods of motivation</p> <p>Describe the impact of current legislation on recruitment and employment</p> <p>Reach judgement and justify conclusions.</p>
	<i>Why are we doing this now? How does it build on</i>	Pupils will have a wider understand of Business which will include links to real life examples.	Pupils will have a wider understanding of the economy and how this links to	The knowledge in this unit builds upon previous units of entrepreneurship	Pupils will recognise the importance of building a customer profile. This builds upon learning in KS3 Enterprise unit.	Pupils will have the opportunity to evaluate current products and use reasoning techniques	Pupils will learn about the importance of teamwork and wider

	<i>prior learning and prepare for knowledge and learning still to come?</i>	These examples will allow pupils to have a broader understanding of the world around them. Skills from KS3 Enterprise unit will be revisited and discussed further.	Business. This will widen their general knowledge of finance which will support further learning. This will be studied further.	and the economy. Pupils will gain further knowledge on what stakeholders are. This supports the learning of how a business functions.	Pupils will learn the importance of feedback in real life scenarios which will support them in further learning. Pupils will learn different communication methods which will benefit their own interpersonal skills.	to describe stages of their life cycle. These skills will support pupils in wider areas of evaluation and analysis. These skills will also be revisited in controlled assessments where a scenario is given.	hierarchical structures in society. They will learn about the recruitment process, they will create their own CV and complete a application form. Pupils will complete mock interviews so that they are prepared for further education or potential jobs applications.
<b>Year 10 Digital Functional Skills</b>	<b>Topic Title and NC link</b>	<b>1.1 the main features and uses of different types of devices</b> <b>1.2 know what an application is and the main types of application software</b>	<b>1.3 apply system settings</b> <b>1.4 navigate online content to locate required information</b> <b>1.5 carry out searches on the internet</b>	<b>1.6 use files to read and store information</b> <b>1.7 use files and folders to organise and retrieve information</b>	<b>1.8 know when there is a problem with a device/software and know the difference between system errors and user errors</b> <b>1.9 apply a solution to a simple technical problem</b>	<b>2.1 use a suitable application to enter, edit and format text</b> <b>2.2 use a suitable application to enter, edit and format graphics</b>	<b>2.3 combine different types of information for a given purpose</b>  <b>2.4 capture media and view in a suitable application</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	Various digital devices and their uses  Hardware & software  Inputs & outputs	how to apply system settings to their devices for themselves and others  how to navigate and locate online content in order to find information. How to identify hyperlinks	How to set up and retrieve files  Understand different types of files and storage  Understand the need for different locations	Various problems with devices and software  The difference between system errors and user errors  Solutions to simple technical issues	The reasons for different document conventions (audience, purpose etc)  Various formatting techniques  How to enter graphics into a document	Real life examples of documents and how to format them appropriately  This includes more consideration of the finished product and issues like placement and manipulation of the graphics used. The different types of digital media

			How to bookmark information and why this is useful				Sample Assessment Material
	<i>Pupils should be able to do... (Skills being developed)</i>	<p>Identify some interconnectedness of the type of device with its connectivity and uses, either in their daily life or in a work context</p> <p>Identify the main features of devices and identify these as input or output. They will be able to discuss how they use the devices and use keywords in identifying this.</p> <p>Differentiate between and identify the interconnectedness of mobile applications with a range of devices.</p>	<p>Demonstrate how to use various system settings on a device for different needs and explain why the setting could be useful</p> <p>Build upon their knowledge of online content</p> <p>Explain how they navigate and find information</p> <p>Review their online search criteria</p> <p>Identify keywords for a range of searches</p> <p>Use key terms to describe the process</p> <p>Demonstrate how to bookmark information</p>	<p>Identify how they manage files and folders.</p> <p>Create, open, change etc files and folders from both local and remote storage</p> <p>Identify suitable storage according to their needs</p> <p>identify storage on a range of devices</p>	<p>Explain the difference between system and user errors</p> <p>Demonstrate how to solve simple technical problems (no internet, printing, device crash, volume etc)</p>	<p>identify a suitable application to use in a given context.</p> <p>Explain the purpose of a range of documents and presentation(s)</p> <p>Demonstrate how to enter, edit and format text and numbers.</p> <p>Apply formatting techniques that relate to audience and purpose</p> <p>Demonstrate how to enter an image into a document or slide show and edit or format it according to specific instructions.</p>	<p>Combine types of information within a given work or real-life context for a specific purpose and ensure that the combination of the two is suitable for the audience. For example: placement of graphic relative to text – no truncating or obscuring, etc).</p> <p>Consider the document they have produced and ensure the combination is suitable.</p> <p>Identify different types of digital media (image, video, screenshot)</p> <p>Demonstrate how to take a screenshot and take a photo/video</p> <p>Complete Sample Assessment Material</p>
	<i>Why are we doing this now? How does it build on prior learning and</i>	Students recap KS3 knowledge and apply to tasks. They develop a positive attitude towards the use of digital skills. This will support them in further units.	Work completed in KS3 on internet can be recalled and expanded upon. This will support learners to help themselves/others	Students can review what they have learnt in previous units as well as KS3. This will help with their organisation of files and help	Students are encouraged to identify errors and can solve them on their own devices	This skills area is interconnected with or underpins other areas of the qualification. It is a key area for the assessment and as a life or workplace skill	This combines the two previous units and is an important skill in preparing for the assessment. Capturing screenshots is

	<i>prepare for knowledge and learning still to come?</i>	It can also support them in their daily lives and future study or career choice.	with accessibility issues. It can support in their future studies and careers.	them to understand the difference between local and remote storage.			essential for the assessment.
<b>Year 10 Computer Science</b>	<b>Topic Title and NC link</b>	<b>System Architecture</b>	<b>Memory and storage</b>  <b>System Software</b>	<b>Computer networks, connections and protocols</b>  <b>Network security</b>	<b>Ethical, legal, cultural and environmental impacts of digital technology</b>	<b>Coding project</b>	<b>Coding project</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>What the Von Neuman Architecture and how this works</p> <p>Know function of the CPU</p> <p>Know the function of the registers How the Fetch-Decode-Execute cycle works when running a program</p> <p>Know how code is used the Fetch-Decode-Execute cycle</p> <p>Know the characteristics of embedded computer systems</p>	<p>The 3 types of storage in computing.</p> <p>The characteristics of each type of memory storage in terms of sider use.</p> <p>What virtual memory is and how this affects speed . What RAM is and how different amounts of RAM affect speed What ROM is</p> <p>The differences between RAM and ROM</p> <p>Units in computing</p> <p>Binary conversions, shifts and arithmetic</p> <p>How characters are stored e.g. ASCII</p>	<p>Factors that affect the performance of networks</p> <p>The roles of a peer-server network</p> <p>What a DNS server is</p> <p>What a hosting server is</p> <p>How cloud computing works</p> <p>What a virtual network is and why it is used</p> <p>Know what the different protocols are in networking and why they are used.</p> <p>What packet switching is</p> <p>What packet sniffing is</p>	<p>Know the issues in computing. This includes</p> <ul style="list-style-type: none"> <li>• Ethics</li> <li>• Legal issues</li> <li>• Cultural Issues</li> <li>• Environment issues</li> <li>• Privacy issues</li> </ul> <p>Stakeholders in technology</p> <p>Computer legislation</p> <p>Computer laws</p>	Pupils will know how to create their own programs using Python and Visual Basic that they have learnt throughout year 1.	

			<p>How images are stored</p> <p>How sound is sampled and stored</p> <p>How data is compressed using lossy and lossless compression</p> <p>Functions of an operating system.</p> <p>Different types of utility software.</p>	<p>How computers can be attacked by external forces</p> <p>How networks can be attacked</p> <p>A range of measures to prevent taken to prevent these attacks</p>			
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Evaluate current embedded systems and say why they are embedded.</p> <p>Recall previous knowledge to explain the functions of internal computing components.</p> <p>Explain in depth how the Fetch-Decode-Execute cycle works</p>	<p>Decide of the most effective memory device for the given scenario.</p> <p>Use analysis skills to explain best possible solutions to increase speed of a computer.</p> <p>Explain the differences of RAM and ROM</p> <p>Use knowledge to explain how parts of the operating system work and why they are important.</p> <p>Identify key utility software, how it works and why it is important.</p>	<p>Use knowledge to design and plan out a network using the correct protocols.</p> <p>Evaluating computers and networks in terms of safety and creative preventative measures for this.</p>	<p>Analysing current laws and matching them to scenarios.</p> <p>Explain what a stakeholder is</p>		

	<p><i>Why are we doing this now?</i>  <i>How does it build on prior learning and prepare for knowledge and learning still to come?</i></p>	<p>Pupils will have an understanding of how the core of the computer system works. This knowledge will support pupils in the following Computer Science units as they build upon this unit.</p>	<p>Pupils will recall knowledge from system architecture to link this with the speed that computers run. Pupils will be able to understand why they devices are running faster/slower and be able to optimise their devices for best use. This will also be linked into further units of study.</p> <p>The computing units and binary side of this unit builds on work students did in the Computer Fundamentals unit in KS3 and allows students to understand units such as bandwidth and download speeds.</p> <p>Having understood how computers store data, students are then able to apply basic concepts of how images, sound and characters are stored in memory.</p> <p>This unit gives students an</p>	<p>Pupils will expand on learning from the KS3 Networking unit. The learning in this unit focuses on the technical details of networks, their structures and how data is sent. From this unit pupils will be able to use their own devices more accurately in terms of accessing online materials and setting up networks for personal us.</p> <p>This unit will build upon network knowledge and include security aspects of using networks. Pupils will be able to become more secure in their own network devices within school and in their personal life. This includes understanding the use of network keys and accessing mobile networks.</p>	<p>This unit combines all units together with a focus on legal issues. The key points learnt will allow pupils to think of their own wider use of technology and be able to recognise ethical issues which will result in them becoming better digital citizens.</p>		



			<p>understanding of the importance of how the operating system bridges the hardware (see System Architecture) with the software apps they use every day.</p> <p>Knowledge about utility software can be used by students in their everyday lives to enhance the performance of the devices they use and keep themselves safe and secure online.</p>				
<b>Year 10 Enterprise and Marketing</b>	<b>Topic Title and NC link</b>	R067 (TA1). R068 (TA1).	R067 (TA1). R068 (TA2)	R067 (TA3). R068 (TA3).	R068(TA5). R068 (TA4).	R067 (TA4). R067 (TA4).	R067 (TA5).
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>What a business is and how it functions.</p> <p>Explain characteristics of an entrepreneur</p> <p>Explain research sampling methods.</p> <p>Explain what market research is and the methods used.</p>	<p>What market segmentation is</p> <p>How a customer profile is important to selling a product/service</p> <p>Explain the difference between secondary and primary research</p>	<p>Be able to calculate total revenue</p> <p>Be able to how to calculate profits and losses for a business</p> <p>Be able to rearrange a formula to find a component</p>	<p>Review the likely financial viability of a business proposal, including the likelihood to break even and make a profit.</p>	<p>The appropriate prices for a product/service</p> <p>Explain ow price affects sales</p> <p>select appropriate advertising methods which a business can used.</p> <p>Explain what customer service and how having good customer service is important.</p>	<p>The different types of ownerships and the disadvantages and advantages of these</p> <p>Submit controlled assessment</p>

	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Use appropriate market research tools for a given business proposal</p> <p>Check the accuracy of secondary research</p> <p>Analyse the entrepreneurial journeys of others and explain the risks and rewards they faced.</p> <p>Use creative techniques and market research to design a product suitable for their chosen customer.</p>	<p>Create a customer profile.</p> <p>Discuss a range of segmentation techniques and apply these to the given scenario.</p> <p>Evaluate and provide feedback to peers.</p> <p>Act on feedback to product final draft. Select the most suitable methods to collate and present data.</p> <p>Justify why their chosen design would appeal to their customer profile.</p>	<p>Create a design mix for a given product</p> <p>Analyse whether specific prices are appropriate for products and how price affects sales.</p> <p>Using case studies to develop application skills.</p> <p>Be able to analyse a business case study, developing connectives for analysis in relation to benefits and drawbacks., using BLT</p>	<p>Use a range of strategies to recall business knowledge gained from the course and be able to apply this to the different business case studies presented to them.</p> <p>Evaluation of strategies to reduce risk.</p>	<p>Make connections with wider, important business themes.</p>	<p>Embedding the chain of reasoning for analyse questions.</p>
	<p><i>Why are we doing this now? How does it build on prior learning and prepare for knowledge and learning still to come?</i></p>	<p>Pupils will have a wider understand of Business which will include links to real life examples. These examples will allow pupils to have a broader understanding of the world around them. Skills from KS3 Enterprise unit will be revisited and discussed further.</p>	<p>Pupils will recognise the importance of building a customer profile. The understanding of the customer profile will allow pupils to create an appropriate product. This builds upon learning in KS3 Enterprise unit. Pupils will learn the</p>	<p>Pupils will understand the importance of audience, this will be built upon from previous KS3 units taught. Pupils will be taught pricing strategies and advertising techniques. This will widen their knowledge base of how things are sold and bought in</p>	<p>This unit will include further learning from the previous learning with the inclusion of sustainability and environmental issues. Pupils will be taught the impacts of these which will increase their general knowledge and awareness of this.</p>		

			importance of feedback in real life scenarios which will support them in further learning. Pupils will learn different communication methods which will benefit their own interpersonal skills. The pupils will use knowledge to complete tasks 1 and 2 of the controlled assessment.	real life which will also enhance wider general knowledge. The pupils will use knowledge to complete tasks 3 and 4 of the controlled assessment.			
<b>Year 11 computer Science</b>		<b>Algorithms</b>	<b>Programming fundamentals</b>	<b>Producing Robust Programs</b>	<b>Boolean Logic</b>	<b>Programming Languages and IDEs</b>	
		<p>The concepts of abstraction, decomposition and computational thinking.</p> <p>What the search algorithms are and how they are used (linear and binary)</p> <p>The difference between the sorting algorithms (bubble sort and merge sort)</p>	<p>How to structure a program</p> <p>How to run a program</p> <p>How debug errors</p> <p>How to save a program</p> <p>The features of an IDE</p> <p>How an IDE works</p> <p>The characteristics of programming languages</p>	<p>What defensive design considerations are</p> <p>Computational logic in coding</p> <p>How to layout code in more than one language</p>	<p>Why computers understand binary in relation to hardware</p> <p>Logic gates in circuitry relate to binary to allow the computer to function</p>	<p>Characteristics and purpose of different levels of programming languages and translators.</p> <p>Common tools and facilities available in an Integrated Development Environment (IDE)</p>	

			The difference between a compiler and a translator				
		<p>Use abstraction and decomposition to create a working algorithm</p> <p>Use searching algorithms to search for data in a file</p> <p>Use sorting algorithms to sort data in a file</p> <p>Write pseudocode to run searches and sorts.</p>	<p>Can use a variety of programming techniques including:</p> <p>File operations</p> <p>Use of strings and arrays</p> <p>Data types</p> <p>Use of SQL</p> <p>Arithmetic and Boolean operators</p> <p>Use an IDE to write a program</p> <p>Debug a program using IDE support</p>	<p>Write code for maintainability</p> <p>Write conditions in code</p> <p>Test and keep testing data for accuracy</p> <p>Identify and fix syntax and logic errors</p>	<p>Calculate the truth table from the logic gate problem.</p> <p>Use the AND, OR and NOT gate</p> <p>Use logic operators</p> <p>Apply mathematical logic to problems</p>	<p>To know the difference between different types of language.</p> <p>Know the difference between compilers and translators</p> <p>Know features of an IDE and why they are useful.</p>	
		<p>Learning will be built upon from KS3 Computational thinking, fundamentals of computing and all coding units. Learning in this unit will support coding and computation thinking skills. Pupils will have a greater understanding of how code is developed and is</p>	<p>Learning will be built upon from KS3 Computational thinking, fundamentals of computing and all coding units. Pupils will have the opportunity to use an IDE which will support learning of how to develop their coding skills. The use of an IDE will also give pupils the opportunity to</p>	<p>Students will have had previous experience of coding from KS3 and previous unit of work. They may be informally using many of the techniques and ideas covered in this unit of work which seeks to formalise a standardised way of developing and</p>	<p>Learning will be built upon from KS3 computational thinking. Pupils will have a foundation of binary arithmetic, logic gates and their uses. This will be taught further to introduce the electrical aspects of logic gates to make sure a computer works. Pupils will know how electricity converts to screen movement using binary in a computer system.</p>	<p>Pupils will have had the opportunity to use an IDE to support code development. Pupils will use this to enhance their coding further and be able to look at errors and how to fix them. This will support them in further study that requires coding.</p>	

		used to search for data.	think about user experience in relation to creating a program. This will follow on from learning in KS3.	testing code systematically.			
<b>Year 11 Digital Functional skills</b>	<b>Topic Title and NC link</b>	<p><b>Communicating</b></p> <p><b>3.1 create and edit details in a contact list</b></p> <p><b>3.2 Compose and reply to online communications comprising text and other digital content to individual and multiple recipients</b></p> <p><b>3.3 initiate and participate in a video call</b></p>	<p><b>3.4 know what is meant by a digital footprint, understand the implications of a digital footprint and know the range of digital activities that leave a digital footprint</b></p> <p><b>4.1 complete and submit an online form (including personal details ) to comply with data validation</b></p> <p><b>4.2 comply with verification checks to complete an online transaction</b></p>	<p><b>5.1 understand the need to stay safe and respect others when using the internet and communicating online</b></p> <p><b>5.2 know simple methods to protect personal information and privacy online</b></p> <p><b>5.3 set up and use security features to access devices and online services</b></p>	<p><b>5.4 understand the benefits of using security software to protect against online risks</b></p> <p><b>5.5 know of and how to minimize the effects of physical stresses that may result from using devices</b></p>	<b>Exam technique and preparation for the assessment</b>	
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>Th different ways people can communicate online</p> <p>How to use email appropriately and accurately</p> <p>How to attach files to an email</p> <p>How to take part in a video call</p>	<p>Understand what a digital footprint is</p> <p>The positive and negative implications of their digital footprint</p> <p>What privacy settings are and why they are important</p>	<p>How to stay safe online</p> <p>How to respect others when communicating on the internet</p> <p>Risks and consequences of not being safe</p>	<p>The benefits of using security software</p> <p>The dangers of viruses and how to protect from them</p> <p>What physical stress is</p> <p>How using devices can contribute to physical stress</p> <p>How to avoid or minimise physical stress</p>	<p>The structure of the assessment</p> <p>Timings and components</p> <p>Mark scheme</p>	

			<p>Understand the purpose of online forms and the different situations they may need to use them in</p> <p>What data validation and verification checks are</p>	<p>How to protect personal information</p> <p>How to set up security features</p>			
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Demonstrate how to add and edit contacts</p> <p>Create a suitable email which includes all the key elements (to, subject, close, etc), an attachment and a suitable message.</p> <p>Demonstrate how to initiate and manage a video call.</p>	<p>Explain what a digital footprint is</p> <p>Identify a range of the online activities that contribute to this</p> <p>Explain the positive and negative implications of their own and others digital footprints</p> <p>Demonstrate how to complete and submit an online form</p> <p>Explain how they are complying with data validation and verification checks</p>	<p>Explain online risks and consequences</p> <p>Demonstrate how to take steps to avoid inappropriate behaviours</p> <p>Explain various ways in which they can protect their personal privacy in work and real life contexts</p> <p>Explain a range of security features</p>	<p>Explain why using security software is important</p> <p>Demonstrate ways to minimise physical stress when using devices</p>	<p><b>Recap previous units and revise for real assessment</b></p> <p><b>Gain confidence in the expectations and structure off the assessment</b></p>	
	<p><i>Why are we doing this now? How does it build on prior learning and</i></p>	<p>Communication is a key skills area and is interconnected with and underpins skill areas 4 and 5. This also links back to storing and retrieving information when</p>	<p>Students need to understand that all online activity leaves a footprint and this could have implications for future study/employment if their online</p>	<p>Skills area 5 underpins digital functional skills in both work and real-life contexts.</p> <p>This will support them when</p>	<p>Students can reflect on how they use devices and take into consideration the ways in which physical stress can be avoided or minimised. This can be useful in further study or work environments.</p>	<p><b>Students are confident and prepare to undertake the final assessment</b></p>	

	<i>prepare for knowledge and learning still to come?</i>	attaching documents.	content is not private  Skills area 4 is interconnected with skill area 5.  Students may need to complete online forms for job applications in the future	navigating the internet			
<b>Year 11 Business Studies</b>	<b>Topic Title and NC link</b>	<b>3.1 HR</b> <b>4.1 Production processes</b> <b>4.2 Quality of goods and services</b> <b>4.3 The sales process and customer</b> <b>4.4 Consumer law</b>	<b>4.5 Business location</b> <b>4.6 Working with suppliers</b> <b>5.1 The role of the finance function</b> <b>5.2 Sources of finance</b>	<b>5.3 Revenue, cost, profit and loss</b> <b>5.4 Break-even</b> <b>5.5 Cash and cash flow</b> <b>6.1 Ethical and environmental considerations</b>	<b>6.2 The economic climate</b> <b>6.3 Globalisation</b> <b>7 The interdependent nature of business</b>		
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<b>Recap from HR: Describe the impact of current legislation on recruitment and employment</b>  The production process; job, batch, flow.  How technology impacts business	the concept of supply chain Factors influencing business location  The impact of logistical and supply decisions on a business  The influence of the finance function on	Why a business needs finance  The different sources of finance  The importance of revenue, costs and profit & loss in business decision-making	Outline ethical considerations (treatment of workers, suppliers and customers, sourcing of materials, marketing decisions)  How the global market works and benefits and drawbacks of globalisation on businesses.	The interdependent nature of business operations, finance, marketing and human resources within a business context  Pupils will revisit all of the topics covered during the business qualification.	

		<p>What the consumer laws are</p> <p>The impact of good customer service and dangers of poor customer service.</p>	<p>business activity</p>	<p>The usefulness of break-even in business decision making</p> <p>The usefulness of cash flow forecasting to a business</p>	<p>What an economic climate is.</p> <p>The changing levels of consumer income have an impact on different businesses in different contexts.</p> <p>The changing levels of unemployment have an impact on different businesses in different contexts.</p>		
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Evaluate the three main production methods.</p> <p>Focus on using a variety of terminology in responses and how to develop analysis even further.</p> <p>Communicate their ideas effectively Draw well-evidenced and informed conclusions about business issues.</p>	<p>Categorising costs</p> <p>Calculating revenue Calculating profit and loss.</p> <p>Identifying sources of finance</p> <p>Focus on using a variety of terminology in responses and how to develop analysis even further.</p>	<p>Calculate &amp; interpret profitability ratios</p> <p>Calculate and interpret average rate of return</p> <p>Calculating breakeven.</p> <p>Evaluate the usefulness of break-even in business decision making.</p> <p>Explain the usefulness of cash flow forecasting to a business</p> <p>Complete a cash flow forecast</p>	<p>Explain the interdependent nature of business</p> <p>Explain how the economic climate impacts a business.</p> <p>Make connections with wider, important business themes such as sustainability and environment and how this impacts a business.</p> <p>Evaluation of strategies to reduce risk. Make judgements and draw conclusions</p>	<p>Focusing on the 'big picture' of bringing the relevant business theory and terminology taught across the curriculum into exam responses.</p> <p>To make connections between the different elements of the subject.</p> <p>Draw knowledge, skills and understanding from the different parts of the GCSE and apply the knowledge to make judgements and draw conclusions.</p>	



	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge and learning still to come?</i>	Pupils will build upon learning in the KS3 enterprise. Pupils will study the use of technology to create successful advertisements. In this unit pupils will also learn what consumer laws are which will support their wider general knowledge and life skills.	Pupils will be asked to calculate costs of produces. This follows on from KS3 units where costing was studied. Pupils will learn where money comes from and how it can be borrowed etc. This is something that they will use in their personal lives and will also be assessed.	Pupils gain a greater understanding of economics and factors that impact the economic climate. This is widening pupils' general knowledge in terms of them understanding their own finances; now and in the future. Pupils will also be asked to use their maths skills which will support their learning in Maths.	This unit will include further learning from the previous learning with the inclusion of sustainability and environmental issues.  Pupils will be taught the impacts of these which will increase their general knowledge and awareness of this.		
<b>Year 11 Enterprise and Marketing</b>	<b>Topic Title and NC link</b>	<b>R069 Topic Area 1</b>	<b>R069 Topic Area 2 R067 Marketing mix</b>	<b>R069 Topic Area 3 R067 Advertising and promoting</b>	<b>R067 Extension strategies R067 Retaining customers</b>	<b>Revision for the R067 exam</b>	
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	What a brand is and why it is important.  Why brands are used  What all the different branding methods there are	How promotional objectives raise awareness of a product  How they differentiate products  How they create market presence  How they increase market share	What aspects make a successful business pitch  How verbal and none verbal skills are both important. How use of cue cards can support pitch delivery	Advertising  Price changes  Adding value  Exploring new markets		
	<i>Pupils should be able to do...</i>	Create a brand  Explain why they have chosen this particular brand	Create a promotional plan	Create a practise pitch and evaluate  Create a final pitch	To select the most appropriate extension strategy for products with justification.		

	<i>(Skills being developed)</i>		Add time frames for the promotional campaign  Highlight key performance indicators in the promotional campaign	Present a successful pitch  Be able to answer questions from the panel	Highlight the factors that need considering when looking at ways to keep customers.	
	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge and learning still to come?</i>	Pupils will build upon their first assessment and create a brand to support the overall project pitch of a new business.  Theory will be linked to support exam	This leads on from the brand as pupils need to understand the importance of promoting a brand once created.  Theory will be linked to support exam	Pupils will be gaining presentation skills that will support wider learning.	This will support the evaluation and review of the completed Controlled assessment as this theory links to what is required in the assessment.	

<b>Year 11 IT</b>	<b>Topic Title and NC link</b>	<b>R070 Controlled Assessment – Augmented reality</b>	<b>Data testing Data collection Cyber Security threats</b>	<b>Digital communications</b>	<b>Internet of everything</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	How HCI is important in terms of AR.  How triggers are used to start and action.  How actions are designed and used to engage audience in AR systems	How data is tested and all the methods used to do this. Also, why this is important.  How data is collected both online and in real life. How this links to security.  What threats there are in terms of cyber security and	How devices communicate with each other.  The list of devices and their function.  How devices are selected to meet audience needs and requirements.	How devices that rely on internet use works.  How devices are automated.  How devices are starting to control aspects of everyday life  How automation works and why It is now a part of every day life.

		How the client brief is important when designing a system	how attacks can be prevented.		
	<i>Pupils should be able to do... (Skills being developed)</i>	<p>Plan, using a range of techniques on how they will create their AR prototype</p> <p>Use appropriate actions in their prototype</p> <p>Use appropriate triggers in their prototype</p> <p>Create a fully functional prototype</p>	Analyse different scenarios and produce the correct outcome using what has been learnt.	Analyse different scenarios and produce the correct outcome using what has been learnt.	Analyse different scenarios and produce the correct outcome using what has been learnt.
	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge and learning still to come?</i>	<p>Pupils are aware of new systems and technologies that are being introduced.</p> <p>This will give pupils a wider awareness of new software needed for the systems</p>	<p>Pupils will recap knowledge from their spreadsheet-controlled assessment where they actually used data validation techniques.</p> <p>Cyber security is a key part of learning with IT.</p>	This follows on from data unit as pupils will now need to understand how data is sent and received.	This encompasses all learning and relates this to real life scenarios which then further links to real life scenarios that include automation.