

**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	6	7
<b>Year 7</b>	<b>Topic Title and NC link</b>	<b>Introduction to Computer systems</b>		<b>Modelling</b>		<b>Internet</b>	<b>Scratch</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>How to use tools within the ribbon in a range of applications in MS Office.</p> <p>How to use the tools within Outlook to send and receive emails.</p> <p>How to use snippet and printscreen</p> <p>How to use Copy, Cut and paste.</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 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 hardware used to connect to the internet.</p> <p>The importance of using the internet safely.</p> <p>How to connect to the internet using different devices.</p> <p>How the basis of a computer network works</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>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>Create a publication that incorporates the skills that they have learnt</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>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>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>Draw a network with correct devices labelled.</p> <p>Analyse how current networks work in relation to network speed.</p> <p>Be able to use search criteria and search engines officially.</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>Use broadcast and receive to enhance game with levels.</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 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>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</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 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>

		Documents will be created in future units.  E-safety will be a feature of future units – this will be constantly updated in relation to current events.			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.	Pupils being able to search the internet accurately will allow them expand their use of the internet to support their learning across all subjects.	
<b>Year 8</b>	<b>Topic Title and NC link</b>	<b>Fundamentals of computing</b>	<b>Computational thinking</b>	<b>Python programming</b>	<b>Image creation</b>	<b>Animation</b>	<b>Web Authoring</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	If a component of a computer is an input, output, storage or neither.  The functions of a range of Computing components. This includes: CPU, motherboard, processor etc.  That computers understand binary.  The difference between logic truth tables  Which form of media would have the highest file size.	That computers understand and work from instructions  The difference between an action, a decision and a process.  The importance of sequencing instructions to produce the correct outcome.  What the symbols of a flow chart are  That every flow chart and system needs a start and a stop.	The concepts and structure of the basics of Python.  That python is a widely used Computing language  That code needs to be written accurately to allow the computer to run the program.  Programs are written in coding languages.	What metadata is and how it works  What copyright is and the importance of copyright.  What will happen if copyright is broken.  Careful planning for creating publications is important.  How different audiences respond to different design techniques	That animation is based on small movements.  The different types of animations that are created.  What a keyframe is and how it is important to movement change  How to save an animation is appropriate formats	What a menu bar is in a website  The structures of UX design.  What the golden triangle is  That the websites are programmed in HTML as a standard to allow all browsers to display the pages.  Websites are uploaded to a host server.  The web extensions of websites.
	<i>Pupils should be able to do...</i>	Calculate the number of bits, bytes, kb, mb and	Break down problems into smaller sections.	Write a sequence of instructions to solve a problem	Insert images into Photoshop	Insert keyframes to set movement and timings in to create an animation	Create a website using Adobe Dreamweaver and HTML.

	<i>(Skills being developed)</i>	<p>gb in relation to given problems.</p> <p>Be able to convert between binary and denary and visa-versa.</p> <p>Write out truth tables for AND, NOT and OR logic gates.</p> <p>Calculate denary to binary and binary to denary</p> <p>Calculate denary to hexadecimal.</p>	<p>Be able to write basic algorithms as a sequence of instructions</p> <p>Create flow charts that include decisions</p> <p>Create flow charts that solve a problem</p> <p>Write pseudocode to solve a problem</p> <p>Write 'if', 'then' and 'else' statements to solve a problem</p> <p>Write accurate conditions in code</p>	<p>Write and run a basic Python program using input and output commands</p> <p>Create a flowchart to solve a problem</p> <p>Create a Python program that uses conditions</p> <p>Set data types to strings</p> <p>Set data types to floats</p> <p>Write 'if statements'</p> <p>Setting conditions in the code</p> <p>Create and explain a program of their choice that solves a problem.</p>	<p>Inserting shapes and change their sizes Use the blur tool</p> <p>Use free transform</p> <p>Use a range of advanced tools in Photoshop</p> <p>Use the distortion tool Using a range of advanced tools in Photoshop</p> <p>Creating publications and graphics aimed at different audiences</p> <p>Add metadata to an image.</p>	<p>Use different tweens to change the movement of objects in animation.</p> <p>Use layers to build objects to create an animation.</p> <p>Use the drawing features to draw own graphics that will move.</p> <p>Set the frame rate and timing of an animation</p> <p>Design and create an animation for a specific audience.</p>	<p>Plan how the website should look</p> <p>Add hyperlinks to link pages together (this can be on an image)</p> <p>Insert images and save in correct folder</p> <p>Format pages using tools within Dreamweaver</p> <p>Use the table tab to improve layout.</p> <p>Write HTML code to change the layout of the page</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 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</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</p>	<p>Pupils will have had experience of manipulating pre set code from the Scratch unit and will have a gained a basic understanding of a coding language. Pupils will know how to break down a problem from the Computational thinking unit. This</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.</p>	<p>Pupils will have a greater understanding of audience and audience needs. They will use this to use more advanced software to create an animation. Pupils will be given the opportunity to be creative using the software which will</p>	<p>This unit will allow pupils to continue being creative with the added challenge of using advanced software. Pupils will focus on UX linked with design for audience. Pupils will adapt and write new HTML code and build upon the learning of coding structures units in previous units. The basis of this will also</p>

		<p>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 use of devices in their life.</p>	<p>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>is a fundamental skill when writing their own programs using a new language. This unit will allow pupils to have the opportunity to learn a new language and write their own code using Python. The will build upon skills learnt previously to develop their coding skills and will support them further when completing the HTML and Visual Basic units.</p>	<p>Pupils will be given the opportunity to develop their creative ICT skills for design. This will support further learning into the animation, animation web authoring 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 need for all areas of study.</p>	<p>support future learning.</p>	<p>support further learning when completing the HTML and Visual basic units.</p>
	<b>Topic Title and NC link</b>	<b>Cyber security</b>	<b>Enterprise</b>	<b>HTML</b>	<b>Visual Basic</b>	<b>Networking</b>	<b>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>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>That websites use HTML code as a standard.</p> <p>What the design and layout tags are in HTML</p> <p>How tags are used when creating webpages</p> <p>How to save code in .txt. and .HTML formats.</p> <p>How files are stored to support of the organisation</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>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>What a Ghant chart is</p> <p>How to use a variety of software</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>of creating a website.</p>		<p>Know what internet protocols are</p> <p>How data packets are sent over the internet</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>Use range of html tags and explain how to use &lt;html&gt;, &lt;head&gt; and &lt;body&gt; to structure a page.</p> <p>Customise a page using tags.</p> <p>Add headings using tags.</p> <p>Add backgrounds using HTML code</p> <p>Embed a video.</p> <p>Create folders to save assets appropriately</p> <p>Use tags appropriately to create a good layout</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>Write and use variables</p> <p>Use the 4 operators + - / *</p> <p>Write if statements for conditions</p> <p>Fixing errors in code</p>	<p>Choose the appropriate topology for the given scenario</p> <p>Draw a LAN and WAN network</p>	<p>In this unit the pupils choose their own project.</p> <p>They need to think of an idea that they want their project to be about.</p> <p>They have 6 weeks to plan, create and present their project.</p> <p>Pupils must choose at least 4 pieces of software that they have used throughout KS3 to create their project.</p> <p>The audience must be consistently thought about throughout</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 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>Pupils will build upon learning in the web authoring and coding units. This will increase confidence with writing code. Pupils will be have the opportunity to learn a new language to support their coding skills.</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>Pupils will be given the creative freedom to complete a project of their choice using the software of their choice. They will be able to expand on their software skills and use their enterprising skills to complete this. This will give them confidence in future learning across all subjects.</p>
<p><b>Year 10 Computer Science</b></p>	<p><b>Topic Title and NC link</b></p>	<p><b>Data representation</b></p>	<p><b>System Architecture</b></p>	<p><b>Memory and Storage</b></p>	<p><b>Wired and Wireless networks and protocols</b></p>	<p><b>System security and software</b></p>	<p><b>Ethics, environment and legal issues</b></p>
	<p><i>Pupils should know... (Core knowledge and concepts to learned)</i></p>	<p>What hexadecimal is</p> <p>What characters are and how they are represented in</p>	<p>what the Von Neuman Architecture and how this works</p>	<p>The 3 types of storage in computing.</p> <p>The characteristics of each type of</p>	<p>Factors that affect the performance of networks</p> <p>The roles of a peer-server network</p>	<p>How computers can be attacked by external forces</p> <p>How networks can be attacked</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> </ul>

	<p>the computer as ASCII and UNICODE</p> <p>How images are represented in terms of pixels and bits</p> <p>How sound files are made up through sampling</p> <p>What the different types of compression are</p> <p>Convert hex to denary and binary</p> <p>Work out file sizes of images and sound files based on their attributes.</p>	<p>Know function of the CPU</p> <p>Know the function of the registers</p> <p>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>memory storage in terms of sider use.</p> <p>What virtual memory is and how this affects speed .</p> <p>What RAM is and how different amounts of RAM affect speed</p> <p>What ROM is</p> <p>The differences between RAM and ROM</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>A range of measures to prevent taken to prevent these attacks.</p> <p>What an operating system is</p> <p>What the 5 subsystems within an operating system are.</p> <p>Know the range of utility software and the function of each of thses.</p>	<ul style="list-style-type: none"> <li>• Environment issues</li> <li>• Privity issues</li> </ul> <p>Stakeholders in technology</p> <p>Computer legislation</p> <p>Computer laws</p>
<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Convert denary to binary.</p> <p>Convert binary to denary</p> <p>Convert hexadecimal to binary and denary</p> <p>Calculate files sizes of images based on their attributes</p> <p>Calculate file sizes of sounds based on their attributes.</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 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>Describe the functions of an operating system</p>	<p>Analysing current laws and matching them to scenarios.</p> <p>Explain what a stakeholder is</p>

		Use ASCII and UNICODE to link to characters					
	<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 have the knowledge to support them in their every day use of technology. This includes mobile and fixed devices. They will also be able to appreciate files and their sizes in relation to storage. Learning in this unit will continue from KS3 Fundamentals of Computing.	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.	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.	Pupils will expand on learning from the KS3 Networking unit. The learning in this unit focus 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	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.	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.
<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>	What the purpose of a business if.  Know what Enterprise is.  How Business plans are used  What an entrepreneur is  The key words relating to starting	What a business objective is  What the different sectors of the economy are  Accurate business terminology  External factors that can impact a business	What a stakeholder in a Business is.  The role of a stakeholder  The impacts on a business and how this affects the growth of the business.	What secondary research is  What primary research is  How good market research affects the business  The importance of good customer feedback	The 4ps are of the marketing mix and how they impact a business  What the product life is and how this changes over time  Complex business language	The different organisational structures within a business.  The importance of digital communication for a business  How the process of interviewing and recruitment works including current legislation

		and running a business	What the functional areas and roles are within a Business	Further business language and terminology	What a customer profile is		Motivational methods that a business has for its employees
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Explain the purpose of business activity and enterprise.</p> <p>Describe the characteristics of an entrepreneur</p> <p>Write a business plan for a given scenario</p> <p>Explain the concept of risk and reward to a business</p>	<p>Be able explain why different businesses have different aims and objectives.</p> <p>Describe the different sectors of economy</p> <p>Explain the concept of limited liability</p> <p>Explain the features of different types of business ownership</p> <p>Describe the different functional areas of a business</p> <p>Apply business knowledge to a scenario</p> <p>Analyse business cases</p>	<p>Write analytically and apply business knowledge to various case studies in a fluent manner.</p> <p>Use business language 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>Describe social class and show an understanding of different customers</p> <p>Explain the four Ps of the marketing mix and their importance.</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>Describe different organisational structures.</p> <p>Understanding the different functional areas of a business</p> <p>Explain methods and importance of business communications</p> <p>Explain the influence of digital communication on business activity</p> <p>Describe methods of selection.</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>

	<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 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 have a wider understanding of the economy and how this links to Business. This will widen their general knowledge of finance which will support further learning. This will be studied further.</p>	<p>The knowledge in this unit builds upon previous units of entrepreneurship and the economy. Pupils will gain further knowledge on what stakeholders are. This supports the learning of how a business functions.</p>	<p>Pupils will recognise the importance of building a customer profile. This builds upon learning in KS3 Enterprise unit. 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.</p>	<p>Pupils will have the opportunity to evaluate current products and use reasoning techniques 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.</p>	<p>In this unit pupils will be taught about the structures of business. This will allow pupils to learn about wider hierarchical structures in society. They will also learn about CVs and complete mock interviews which is a life skill. This will help them when applying for higher education or potential jobs.</p>
<b>Year 10 Enterprise and Marketing</b>	<b>Topic Title and NC link</b>	<b>R064: The Role of Business. Functions of a Business LO5 R065: Task 1</b>	<b>R064: LO1 and LO3 Customer information and Design a product R065: Task 1 and 2</b>	<b>R064: LO4 Financial Analysis R065:Task 3 and 4</b>	<b>R064: LO2 Costs analysis R065:Task 4 and 5</b>	<b>R064: L06 Functional Areas of Business R065:Task 5</b>	<b>R064 revision</b>
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>What a business is and how it functions.</p> <p>The different types of ownerships and the disadvantages and advantages of these</p> <p>The forms of finance that are available to a</p>	<p>What market segmentation is</p> <p>How a customer profile is important to selling a product/service</p> <p>What market research is and the methods used.</p>	<p>The appropriate prices for a product/service</p> <p>How price affects sales</p> <p>All the advertising methods that a business can used.</p>	<p>What a fixed cost is</p> <p>What a variable cost is</p> <p>The differences between fixed and variable costs.</p> <p>What break-even is when selling a product</p>	<p>The functional areas that a Business has.</p> <p>The different roles and responsibilities that a business has</p> <p>HR supports the running of a business</p>	

		business and how they can be obtained.	The difference between secondary and primary research  The product life cycle extension strategies	What customer service and how having good customer service is important.			
	<i>Pupils should be able to do... (Skills being developed)</i>	Discuss Aims and Objectives of a business.  Describe Functions of a Business.  Explain and evaluate different types of business ownerships.  Discuss and evaluate most appropriate forms of finance.  Describe different functions of a business and summarise interdependencies.	Discuss a range of segmentation techniques and apply these to the given scenario.  Create a customer profile.  Discuss a range of market research methods.  Create at least 2 market research tools.  Use creative techniques and market research to design a product suitable for their chosen customer.  Evaluate and provide feedback to peers.  Act on feedback to product final draft.  Justify why their chosen design would appeal to their customer profile.	Discuss whether a product is financially viable.  Analyse whether specific prices are appropriate for products and how price affects sales.  Describe the different advertising and promotions techniques that a product can have.  Discuss the importance of customer service	Calculate the total fixed and variable costs that a business has.  Calculate revenue in a business  Calculate the profit of a business when selling products.  Be able to calculate the break-even point of a business.	Describe the functional activities in small and large businesses.  Explain how HR is involved in running a business.  Explain the different roles within a business and each roles benefits.	Recap of all the units with end of unit tests.

			Discuss product life extension strategies				
	<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 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 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.</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 real life which will also enhance wider general knowledge. The pupils will use knowledge to complete tasks 3 and 4 of the controlled assessment.</p>	<p>Pupils will be taught mathematical techniques in relation to Business. This again, will support their wider general knowledge of how Businesses operate in real life. The maths skills learnt will be used in their controlled assessment and will be transferable to other subject areas. The pupils will use knowledge to complete tasks 4 and 5 of the controlled assessment.</p>	<p>In this unit pupils will be taught about the structures of business. This will allow pupils to learn about wider hierarchical structures in society. They will also learn about CVs and complete mock interviews which is a life skill. This will help them when applying for higher education or potential jobs. The pupils will use knowledge to complete tasks 5</p>	<p>Recap of all the units with end of unit tests to ensure knowledge is secure.</p>
<b>Year 10 Creative iMedia</b>	<b>Topic Title and NC link</b>	<b>R081 teaching</b>	<b>R082 teaching</b>	<b>Complete R082 Controlled Assessment</b>	<b>Complete R082 Controlled Assessment</b>	<b>R086 Teaching</b>	<b>Complete R086 Controlled assessment</b>
	<p><i>Pupils should know...</i></p> <p><i>(Core knowledge and concepts to learned)</i></p>	<p>What a media product is</p> <p>The differences between audiences</p>	<p>What the different file types are of images and sounds and how they relate to quality and file size</p>			<p>Where animations are used.</p> <p>The purposes of animations</p>	

		<p>What pre production planning is</p> <p>What the different planning techniques are and they are used.</p> <p>The importance of copyright and why it is used on publications</p> <p>How to judge picture/sound quality by file size and file type</p> <p>The health and policies are when creating media publications.</p>	<p>Where graphics are used.</p> <p>Why certain graphics are used for certain audiences.</p>			<p>How animations are created</p> <p>The different types of animations that are widely used.</p> <p>The history of animation.</p> <p>What persistence of vision is.</p> <p>.</p> <p>Why certain animations are used for certain audiences.</p>	
	<p><i>Pupils should be able to do... (Skills being developed)</i></p>	<p>Create a moodboard for a given purpose</p> <p>Create storyboards for potential adverts</p> <p>Write and explain what camera angles and what camera types are. Choose the correct ones for their project</p> <p>Write and interpret scripts for a moving video</p> <p>Create workplans and Ghant charts</p>	<p>Create detailed graphics for a specific audience and explain.</p> <p>Use advanced tools within the graphic creation software to create a graphic for a given audience.</p> <p>Save the graphic in different formats and relate this to specific platforms they can be used on.</p> <p>Evaluate why tools have been used.</p>	<p><b>Use skills from teaching units to complete the controlled assessment.</b></p>	<p><b>Use skills from teaching units to complete the controlled assessment.</b></p>	<p>Create an animation for a specific audience and explain tools and layers used (to support final evaluation).</p> <p>Use advanced tools within the animation software to create a graphic for a given audience.</p> <p>Save the animation in different formats and relate this to specific platforms</p>	<p><b>Use skills from teaching units to complete the controlled assessment.</b></p>

		<p>for the creation of their media project.</p> <p>To choose the correct file format for the scenario e.g. JPG for an internet based graphic</p>				<p>they can be used on.</p> <p>Explain the frame rate of animations and how this relates to speed</p> <p>Evaluate the animation created.</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 be able to use a variety of methods to express their creative thoughts. This will support them when completing the controlled assessments and will allow to create better media publications. A wider understanding will be developed of how media is used in real life. Previous learning from year 8 Fundamentals and Image creation will be built upon to allow pupils a better understanding of images in relation to file sizes.</p>	<p>This unit requires pupils to create a graphic, previous learning of file types and sizes will support pupils in creating a much more appropriate graphic in relation to the specific technicalities of a graphic. Audience will also be revisited to build on learning from KS3 units, pupils will be now much more aware of audience as it has been previously studied. Learning from year 8 image creation unit will be expanded further as Metadata will be studied in further detail. Pupils will use this to complete their controlled assessments.</p>			<p>Pupils will build upon learning from the year 8 animation unit to enhance and learn extra skills to allow pupils to create an appropriate animation. Audience will also be revisited to build further on previous units. The pupils will have skills needed to complete their R086 animation assessment.</p>	

Year 10 Functional Skills	Topic Title and NC link	The purposes of ICT / Health and Safety (All topics will encompass office skills – word and pp)	Communication techniques (All topics will encompass office skills – word and pp)	Security Techniques / E-safety / viruses (All topics will encompass office skills – word and pp)	Finding information / Searching (All topics will encompass office skills – word and pp)	MS Excel	MS Access
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>Where to find tools within the ribbon of Office.</p> <p>The importance of being safe when using ICT equipment.</p> <p>How to access system settings</p>	<p>The different ways people communicate using digital devices</p> <p>How to be safe when using devices</p>	<p>How to be safe when using devices</p> <p>How to change settings on social media apps</p> <p>The difference between a web based and fixed app.</p> <p>What a virus is a how it can be harmful.</p> <p>Why a strong password is important.</p>	<p>How to use a search engine</p> <p>How to use key words</p> <p>What the different extensions of a web address are</p> <p>The different types of browsers available</p>	<p>What cells, rows and columns are</p> <p>How to save an open an excel file</p> <p>Where to find tools within the ribbon of Office.</p>	<p>What a Database is</p> <p>How a database works</p> <p>What a field is in a database</p> <p>What a query/search is</p> <p>How a mobile phone is a database</p> <p>Who uses a database</p>
	<i>Pupils should be able to do... (Skills being developed)</i>	<p>Explain with examples the importance of being safe when using ICT.</p> <p>Start to evaluate current publications made using ICT and explain the strengths and weaknesses (this will support further tasks).</p>	<p>Write down and explain how communication method is used and provide examples.</p> <p>Write example communication messages for each device according the setting and audience.</p> <p>Write an appropriate email</p>	<p>Investigate the uses and security setting of social media – both web and app based.</p> <p>Prepare a report with recommendations for settings on specific apps.</p> <p>Present information to an audience.</p>	<p>Use key words when searching the internet to find a more accurate search result.</p> <p>Use and understand advanced search to produce accurate search results.</p> <p>Analyse websites for accuracy in terms of date made and content.</p>	<p>Write conditional statements.</p> <p>Create interactive cells.</p> <p>Create and use list boxes.</p> <p>Use conditional formatting.</p> <p>Create and use and use a Macro. (all for a purpose)</p>	<p>Create tables and populate with data.</p> <p>Change the format of the table.</p> <p>Sort and filter data in the table.</p> <p>Write queries and rules using operators to search data effectively.</p>

		<p>Understand design aspects that have been used and how these relate to the audience.</p> <p>Change the system settings on a computer/mobile device to suit the health and safety need of the user.</p>	<p>Use the functions of Outlook correctly.</p>	<p>Evaluate the impact of social media on society highlighting the advantages and disadvantages.</p> <p>Explain what makes a good password and how important it is to have a strong password and to use different passwords for different sites/apps.</p> <p>Explain what a computer virus is and how it can be stopped.</p> <p>Explain what copyright is and how it is used.</p> <p>Put passwords on documents in MS Office.</p>	<p>Explain and highlight all the areas to look out for when deciding if online information is accurate or fake.</p> <p>Understand the term bias and be able to highlight this in online information.</p>	<p>Create charts and graphs and be able to label these correctly.</p> <p>Use the filter and sort tools in Excel.</p>	<p>Create forms and format design to allow data to be entered with ease.</p> <p>Create reports and format design so it is clearer for the audience to read.</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>As an introduction to the course pupils will focus on the safety aspects of using computers safely. Further study from the year 7 introduction unit will be done to allow pupils to use the advanced setting of a computer system. This will support them in wider</p>	<p>Pupils will be required to use emails more for a professional setting, whether this be in school or outside use. The focus of this unit is to further reteach from KS3 on how to send an appropriate email. This will support them in applications etc.</p>	<p>As pupils are more aware of social media and are using ICT more it is important that this is re covered in more depth from KS3 learning. In this unit pupils are also taught in detail about settings in browsers and apps. The importance of</p>	<p>As pupils will be completing KS4 work online using online resources. It is important that they know how to use search told effectively. This follows on from the KS3 internet unit. Pupils will also be taught how to spot fake news to make them more aware in their lives of how to use online materials.</p>	<p>This unit will build upon skills learnt in the KS3 modelling unit. Pupils will learn the advanced features of Excel. These skills will support their logical think and problem solving skills. They will also allow them to understand the costs of things in general to support</p>	<p>In this unit pupils will look at how information is stored and found. This will be related to real life scenarios that the pupils will have in their daily lives.</p> <p>Pupils will be upon learning of the use of conditions in KS3.</p>

		learning and their own personal device use.	The pupils are also taught some of the further features in Outlook so they can use this more effectively to support their personal use and wider learning in KS4.	passwords and copyright is taught to ensure pupils are aware of their own use of images. This learning will be done whilst pupils use Microsoft Office tools to continue to support their use of this.	This both for a safety and online resource point of view. These skills will support pupils in their assessment where they will need to search the internet effectively.	their wider general knowledge. These will also be assessed in their highest assessment.	
<b>Year 11 Computer Science</b>	<b>Topic Title and NC link</b>	<b>Algorithms</b>	<b>Programming techniques</b>	<b>Producing Robust Programs</b>	<b>Logic</b>	<b>Exam</b>	
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<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>The difference between a compiler and a translator</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>		
	<i>Pupils should be able to do...</i>	Use abstraction and decomposition to create a working algorithm	Can use a variety of programming techniques including:	Write code for maintainability	Calculate the truth table from the logic gate problem.		

	<i>(Skills being developed)</i>	<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>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 conditions in code</p> <p>Test and keep testing data for accuracy</p> <p>Identify and fix syntax and logic errors</p>	<p>Use the AND, OR and NOT gate</p> <p>Use logic operators</p> <p>Apply mathematical logic to problems</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>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 used to search for data.</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 think about user experience in relation to creating a program. This will follow on from learning in KS3.</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>	<p>Learning will be built upon KS3 computational thinking. Pupils will have a foundation of 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>		

Year 11 Business Studies	Topic Title and NC link	4.1 Production processes 4.2 Quality of goods and services 4.3 The sales process and customer 4.4 Consumer law 4.5 Business location	4.6 Working with suppliers 5.1 The role of the finance function 5.2 Sources of finance 5.3 Revenue, cost, profit and loss	5.4 Break-even 5.5 Cash and cash flow 6.1 Ethical and environmental considerations 6.2 The economic climate	6.3 Globalisation 7 The interdependent nature of business		
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	The production methods  How technology impacts business  What the consumer laws are	What the different sources of finance are  Why a business needs finance	How costs impact a business	How the global market works  What an economic climate is  What the risks are to a business	Pupils will revisit all of the topics covered during the business qualification.	
	<i>Pupils should be able to do... (Skills being developed)</i>	Evaluate the three main production methods.  Explain the impact of technology in production.  Describe methods of ensuring quality  Describe the sales process, customer service and importance of ICT/ social media  Describe the impact of consumer law on businesses Location	Categorising costs  Calculating revenue Calculating profit and loss.  Explain the reasons businesses need finance  Identifying sources of finance	Calculate & interpret profitability ratios  Calculate and interpret average rate of return  Calculating breakeven.  Evaluate the usefulness of break-even in business decision making.  Explain the usefulness of cash flow forecasting to a business	Explain the interdependent nature of business  Explain how the economic climate impacts a business.  Make connections with wider, important business themes such as sustainability and environment and how this impacts a business.  Evaluation of strategies to reduce risk.	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.	

		Communicate their ideas effectively Draw well-evidenced and informed conclusions about business issues.		Complete a cash flow forecast  Explain ethical considerations and their impact on businesses  Explain environmental considerations and their impact on businesses  Make judgements and draw conclusions			
	<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 their 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</b>	<b>Topic Title and NC link</b>	<b>R066 LO1 Branding</b>	<b>R066 LO2 Promotional Techniques</b>	<b>R066 LO3 Presentation Skills</b>	<b>R066 LO4 Evaluation</b>	<b>R064 Revision for resit students</b>	

<b>and Marketing</b>	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	<p>Why branding is important to a business is</p> <p>A logo is</p> <p>A strapline is</p> <p>An endorsement is</p>	<p>What a promotional technique is</p> <p>What the advantage and disadvantage of each technique is</p> <p>How using the wrong technique can result in a loss of sales</p>	<p>What a business pitch is</p>	<p>What makes a good business pitch</p>		
	<i>Pupils should be able to do... (Skills being developed)</i>	<p>Discuss why businesses create a brand.</p> <p>Use examples and link to segmentation.</p> <p>Describe a range of branding techniques and select appropriate branding techniques for a given scenario</p>	<p>Explain and evaluate a wide range of promotional techniques.</p> <p>Select appropriate techniques for a given purpose.</p> <p>Support their choice with links to customer profile and market research.</p> <p>Evaluate how the techniques chosen complement each other</p>	<p>Describe factors for consideration when preparing a pitch e.g. layout of room, body language, visual cues.</p> <p>Prepare a business pitch.</p> <p>Practice the pitch with a peer and receive/provide feedback.</p> <p>Show evidence of acting upon feedback.</p> <p>Present the pitch to an adult audience</p>	<p>Reflect on their pitch and identify areas for improvement.</p> <p>Discuss overall viability of their business plan with specific reference to their costing and financial forecasting</p>		
	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge</i>	<p>Pupils will build knowledge from learning in KS3 enterprise unit and previous year 10 units. Pupils will understand why branding is important. They</p>	<p>Pupils will use the evaluation techniques that they have used in KS3 and KS4 units to discuss promotional methods. The understanding of</p>	<p>Learning from the Enterprise and project units in year 9 will be built upon in this unit. Pupils will use prior learning and experience to create and pitch</p>	<p>Pupils will use their evaluation skills to self-reflect and evaluate their own performance. This will support them in self-reflection on other tasks that they undertake.</p>		

	<i>and learning still to come?</i>	will be asked to create a brand for their product and this will support them in being creative which is assessed.	this will allow pupils to think about the products that they purchase and use in their personal lives.	and present to an audience. This unit will allow pupils to gain confidence in presenting which will support them when applying to college and attending interviews			
<b>Year 11 Creative iMedia</b>	<b>Topic Title and NC link</b>	<b>Complete R086 <i>Controlled Assessment</i></b>	<b>R081 revision <i>For exam</i></b>	<b>R087 Teaching</b>	<b>Complete R087</b>	<b>R081 Revision <i>For exam – only resit students</i></b>	
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>			The different types of multimedia products available.  The importance of audience and design when creating these.			
	<i>Pupils should be able to do... (Skills being developed)</i>		Recap of theory	Plan on paper how a interactive multimedia product will look in terms of design  Plan on paper how a interactive multimedia product will look in terms of design  Create graphics appropriate for the design brief  Create an animation appropriate for the design brief			

				<p>Create a movie appropriate for the design brief.</p> <p>Create a navigation system with a menu bar</p> <p>Hyperlink text and graphics to appropriate pages of the interactive multimedia product.</p> <p>Write a detailed evaluation on project created.</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 revise topics ready for their exam</p>	<p>Pupils will build upon learning from the year 9 project and year 7 introduction unit to enhance and learn extra skills to allow pupils to create an appropriate interactive product. Audience will also be revisited to build further on previous units. Pupils will think about UX in terms of media products created. The pupils will have skills needed to complete their R087 animation assessment.</p>		<p>Pupils will revise topics ready for their exam</p>	

Year 11 Functional skills	Topic Title and NC link	MS Outlook	Scenario based problem solving (exam prep)	Recap / Exam Ent L1, 2 and 3	Exam prep Level 1	Level 1 exam	
	<i>Pupils should know... (Core knowledge and concepts to learned)</i>	How emails are used in society  How to write a professional email	How to break down a scenario				
	<i>Pupils should be able to do... (Skills being developed)</i>	Send an appropriate email.  Reply to an email.  Forward an email.  Use CC and BCC.  Create an email signature  Insert contacts from an address book.  Add contacts to an address book.  To use the functions of Outlook in preparation for their exams.	Read and understand project briefs and be able to create documents for the audience.  Be able to present their project to the class.  Read a scenario and how to break down the scenario into parts of what is required.	Pupils will work through past assessments for entry 1,2 and 3. This will be completed as a real exam and marking will be discussed as a class to run through each point.	Pupils will work through past assessments for Level 1. This will be completed as a real exam and marking will be discussed as a class to run through each point.		
	<i>Why are we doing this now? How does it build on prior learning and prepare for knowledge</i>	Pupils will learn the extra features in Outlook which will support their general use of sending and organising emails. This will support college applications. This	Pupils will use their problem solving skills to break down a problem and select the appropriate use of software. This will support them when completing their assessment.				

	<i>and learning still to come?</i>	will also be assessed.					
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