

ICT & CS Curriculum map 2019-2020

Term	Year 7	Year 8	Year 9
1	<p><u>Game addiction</u></p> <p>Explore safe usage of computers</p> <ul style="list-style-type: none"> ● Addiction ● Anti social usage ● Medical considerations <p><u>Esafety/Search the web</u></p> <ul style="list-style-type: none"> ● Techniques to stay safe ● Important considerations when using the web ● Agencies / people to contact if concerned ● Legal aspects ● Research techniques ● Serif movie maker skills 	<p><u>Cyberbullying</u></p> <ul style="list-style-type: none"> ● Introduce terms ● Real life stories ● Legal considerations ● Agencies / people to contact if concerned ● Useful websites <p><u>HTML</u></p> <ul style="list-style-type: none"> ● HTML ● CSS ● Design ● Development ● Creating a web form ● Assessment 	<p>Recap on eSafety - videos and grooming.</p> <p><u>Computer Science:-</u></p> <p><u>Networks</u></p> <ul style="list-style-type: none"> ● The Internet ● Connectivity ● Topology ● Client-server networks ● Encryption <p><u>iMedia</u></p> <p><u>Digital Graphics</u></p> <ul style="list-style-type: none"> ● What is a digital graphic and where are they used? ● What type of file formats are needed within a digital graphic? ● What is composition and white space? ● Write up a report on digital graphics.
2	<p><u>Spreadsheets</u></p> <p>Spreadsheet skills to include the following:</p> <ul style="list-style-type: none"> ● Basic formula (+-*/) ● More complex formula (min, Max, Avg) ● Spreadsheet formatting ● Disseminating from brief the requirements of a spreadsheet ● Graphs ● Filtering ● Spreadsheet modelling <p><u>Searching the web</u></p> <ul style="list-style-type: none"> ● Browsers and search engines ● URLs 	<p><u>Cryptography</u></p> <ul style="list-style-type: none"> ● Historical concepts of encryption (Caesar Cipher / ww2 enigma & turing bombe) ● Modern applications of encryption ● Use within shops (bar codes/check digits) ● Application of QR barcodes ● Data Rights Management <p><u>Databases</u></p> <ul style="list-style-type: none"> ● Introduction to databases ● Creating a database table ● Queries ● Input forms ● Creating a report 	<p><u>Computer science:-</u></p> <p><u>Algorithms</u></p> <ul style="list-style-type: none"> ● solving a problem using a Flow charts ● searching/sorting ● Sequencing ● Pseudocode <p><u>iMedia</u></p> <p><u>Creating pre production documents</u></p> <ul style="list-style-type: none"> ● Storyboards ● Visualisation diagrams ● Mind Maps ● scripts ● Moodboards

	<ul style="list-style-type: none"> ● Domain Names ● Effective searching 	<ul style="list-style-type: none"> ● Finishing and testing 	
3	<p><u>First steps in small basic</u></p> <ul style="list-style-type: none"> ● Introduction ● For loops and colour ● Text window ● Variables ● Conditions <p><u>Understanding computers</u></p> <ul style="list-style-type: none"> ● Elements of a computer system ● The CPU ● Understanding binary Binary addition ● Storage devices ● Convergence and new technologies 	<p><u>Python/Small Basic</u></p> <ul style="list-style-type: none"> ● The basics ● Loops ● Lists ● Procedures ● Functions <p><u>Networks</u></p> <ul style="list-style-type: none"> ● The Internet ● Connectivity ● Topology ● Client-server networks ● Encryption 	<p><u>Computer Science</u></p> <p><u>Python</u></p> <ul style="list-style-type: none"> ● Fundamentals ● selection and iterative ● functions ● reading and writing files ● programming techniques <p><u>iMedia</u></p> <p><u>Using graphic software</u></p> <ul style="list-style-type: none"> ● Serif Affinity designer and publisher ● Photoshop ● Comiclif

4	<p><u>Algorithms</u></p> <ul style="list-style-type: none"> ● Introduction to algorithmic thinking ● Breaking down everyday tasks into algorithms ● Production of flow charts ● Use of logo ● Control of inputs / actuators ● Logo procedures / loops (iteration) <p><u>Information Systems</u></p> <ul style="list-style-type: none"> ● What is an information system ● Data Logging ● Microbits ● Sensor ● Binary 	<p><u>Animation</u></p> <ul style="list-style-type: none"> ● Frame-by-frame animation ● Motion tweening ● Text, buttons and ActionScript ● Planning an animation ● Adding sound effects ● Publishing an animation <p><u>Preproduction documents</u></p> <ul style="list-style-type: none"> ● Interpretation of a theme ● Storyboards ● moodboards ● Scripts ● Mind maps 	<p><u>Computer Science</u></p> <p><u>Binary</u></p> <ul style="list-style-type: none"> ● History of binary ● Binary addition ● Hex and Hex addition <p><u>imedia:-</u></p> <p><u>Producing graphic artwork</u></p> <ul style="list-style-type: none"> ● Manipulation graphics ● creating finished products following a brief ● Using correct software for particular graphic tasks
5	<p><u>Project -Take a break</u></p> <ul style="list-style-type: none"> ● goal seek ● If formulas ● Conditional formatting ● forms ● Queries <p><u>Branching Stories</u></p> <ul style="list-style-type: none"> ● Threads ● Hyperlinks ● Create storyline ● Plan storyboard 	<p><u>Graphics</u></p> <ul style="list-style-type: none"> ● Introduction to vector graphics ● Bitmap graphics ● Conveying meaning ● Effects and enhancements ● Adding text <p><u>App inventor</u></p> <ul style="list-style-type: none"> ● Introducing programming ● designing ● creating 	<p><u>Computer science:-</u></p> <p><u>Databases</u></p> <ul style="list-style-type: none"> ● Table,Forms,Reports ● Relational ● Queries ● Entity relationship diagrams <p><u>iMedia</u></p> <p><u>Improvements</u></p> <ul style="list-style-type: none"> ● Report on digital graphics ● Moodboard ● visualisation diagram ● mind map ● Final art work
6	<p><u>Continue with project</u></p> <ul style="list-style-type: none"> ● Brochure Plan ● Research ● Final Brochure ● evaluation 	<p><u>Sound Manipulation</u></p> <ul style="list-style-type: none"> ● Using audacity ● Digital sound ● Jobs in sound industry ● Listening and planning 	<p><u>Computer science:-</u></p> <p><u>Preparation for KS4 GCSE CS</u></p> <ul style="list-style-type: none"> ● Recap on networks ● Recap on algorithms ● Recap on python

	<p><u>Advert for take a break</u></p> <ul style="list-style-type: none">● Plan out advert● Create advert on movie maker● peer assess	<ul style="list-style-type: none">● Creating an advert● Finishing and exporting● Evaluation	<ul style="list-style-type: none">● Recap on binary and hex <p><u>iMedia</u></p> <p><u>Evaluations</u></p> <ul style="list-style-type: none">● What went well with the project ?● How could i have improved my work?● What could I have done better ?
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