

Year 7						
	HT1 Topic/Unit: 7.1 - Introduction to Computing/ ESafety	HT2 Topic/Unit: 7.2 - Presenting Information	HT3 Topic/Unit: 7.3 – Computational Thinking	HT4 Topic/Unit 7.4 – Scratch Programming	HT5 Topic/Unit 7.5 - 3D Printing	HT6 Topic/Unit 7.6 Digital Graphics
Key Content: -	<p>Grooming, Trolling, Cyberbullying, Catfishing Phishing, Hacking, Spam Online Predator, Identity Theft, Scamming -Online safety - Groomers</p> <ul style="list-style-type: none"> • What is E-Safety? • Explain what social media is? • What is email? • What is a PEGI rating on a game? • Identify and explain the dangers of social media, email and online gaming. • Identify and explain ways to stay safe online when using social media, email and online gaming 	<p>Application, Edit, Efficient, Ms Word, Word Processing, Excel, Calculations, Formula, Column, Cell, Cell Reference, Row, Spreadsheet, VLOOKUP, IF, Count If, Min, Max Database, record, primary key, flat file, table, field, data type, value, Query</p> <ul style="list-style-type: none"> • What is application software? • How does application software make tasks on a computer efficient? • What is MS Word and what is it used for? • What is Excel? What can it be used for? • How can document be formatted? • Wrap text is an option which can be applied to cell in order to do what? • What term describes changing the horizontal or vertical position of text? • What is Conditional formatting? • What is a database? • What is a primary key? • What is validation in a database? 	<p>Computational Thinking, Algorithms, Problem Solving, Pattern Matching, Decomposition, Abstraction, Sequence, Cipher, Instructions, Pseudocode, Flowchart, Debug</p> <ul style="list-style-type: none"> • What is an algorithm? • What are instructions? • What is Decomposition? • What is abstraction? • Is there more than one way to solve a problem? • What is pattern matching? • What is a decision in an algorithm represented as? • What two ways can an algorithm be represented? • 	<p>Scratch, Sequence, Selection, Repetition, Blocks, Costume, Sensing, Variable, Sprite, Operators, Loops, Forever Loop</p> <ul style="list-style-type: none"> • What is Scratch? • What is a sprite? • What are variables? • What blocks are used for selection in scratch? • What are operators? • What blocks can be used for iteration? • What is a loop? 	<p>Tinker CAD, Work plane, object, moving objects, resizing, sizing, grouping, hiding, Duplicating, Aligning, 3D Design, CAD</p> <ul style="list-style-type: none"> • What do you think 3D printing is? • What do you already know about 3D Printing? • What is the difference between 2D and 3D? • What does Slicing mean in 3D printing? • What does bed refer to in 3D printing? • What are the different materials used in 3D printing? • What is TinkerCad used for? • What are the file formats for 3DPrinting? 	<p>Bitmap, Vector, Pixels, Photo Editing, Image manipulation, Meta Data, Shapes, Lines, Curves</p> <ul style="list-style-type: none"> • What is a bitmap image? • How are they created? • Where do we usually see them? • How can a bitmap image be edited? • What is a vector image? • How are they created? • Where do we usually see them? • Which image takes up more space on a computer and why? • What is resolution? • What does it mean if an image has low resolution? How can we tell? • How does resolution dpi and colour depth impact file size? • When stretched which image type does not lose its quality, vector or bitmap? • What is compression? • What is lossy compression? • What is lossless compression? • What is the difference between lossy and lossless compression?

Year 8						
	HT1 Topic/Unit: Architecture of Stories	HT2 Topic/Unit: Architecture of Stories	HT3 Topic/Unit: Python	HT4 Topic/Unit Computer Architecture	HT5 Topic/Unit Networks	HT6 Topic/Unit Multimedia
Key Content:	<p>Fake News, Bias, Biased, Credible, Fact, Source, Information, Misinformation, Viral, Society, Political, Cyberbullying, Flaming, Harassment, Cyberstalking, Outing and Trickery, Sexting, Sexually Explicit, Sextortion, Peer Pressure, Social Engineering, Shouldering, Phishing, Pharming</p> <p>E-Safety</p> <ul style="list-style-type: none"> • What is fake news? • How can fake news be a problem? • What are the consequences on society of fake news spreading? • What is cyberbullying? • How can cyberbullying be prevented? • Who does it impact? • What are the consequences of cyberbullying? • What is sexting? • How can sexting be avoided? • Does sexting break the law? • What does the law say about sexting? • What are the consequences of sending a sext? What are the legal consequences of sexting? • What laws protect against sexting. • What is social engineering? • What is shouldering? Give an example of how shouldering might happen? 	<p>HTML, Tags, Opening Tags, Closing Tags, Browser, Notepad, Header, Body, Footer, Website, Webpage, URL, GIF, Source, Folders, Website Features, Page Layout, Site Structure, Homepage, Navigation, Consistency, Background, Banner, White space, animated banner, interactive banner, roll over buttons.</p> <p>Websites</p> <ul style="list-style-type: none"> • What is a website? • How are websites created? • How can a website be viewed? • Give an example of a browser that can be used to view a website? • Explain what site structure on a website means. • Why is consistency important in a website? • What is HTML 5 and why is it used? 	<p>Python, IDLE, Variable, Print, Input, Output, Interpreter, Compiler, Parenthesis, Integer, Iteration, Function, Exterior angles, interior angles, angles,</p> <p>Python</p> <ul style="list-style-type: none"> • What do you think the problem is? • What is input used for? • What is print used for? • How do you run the program? • What happens if you didn't include the brackets would it still work? 	<p>Architecture, Input, Output, Process, Computer System, Component, embedded system, software, Peripheral, Internal, External, Fetch, Decode, Execute, Processor, Cache Memory, Data bus, Gigahertz, RAM, ROM, Volatile, Non-Volatile, Memory, Address bus, Registers</p> <p>Computer Architecture</p> <ul style="list-style-type: none"> • What does architecture mean? • What might a computers architecture be? • What parts of a computer make up its architecture? • What is a computer system? • Give an example of one type of storage system used in a computer system. • What does CPU stand for? 	<p>Networks, LAN, WAN, WI-FI, VPN, Ethernet, Router, Bluetooth, Cables, Switch, Packet Switching, Hardware, Bandwidth, Data Transfer, Packets, Layers, Network Protocols, TCP, HTTP, IMAP, POP3, Hub, Server, Interference, IP, IP address, Masking IP, Topologies, Threats</p> <p>Networks</p> <ul style="list-style-type: none"> • What is a network? • Can you think of any devices that connect to a network in your house? • What is a virtual private network? • What is the purpose of a virtual private network? • Give an example of a LAN • Give an example of a WAN. • Compare wired to wireless connections and list examples of specific technologies currently used to implement such connections • Define 'bandwidth', using the appropriate units for measuring the rate at which data is transmitted, and discuss familiar examples where bandwidth is important 	<p>Multi-media, text, images, sound, video, animation, navigation, background, purpose, audience, triggers, transition, master slide,</p> <p>Multimedia</p> <ul style="list-style-type: none"> • What is multi-media? • What does multimedia consist of? • What is the purpose of multimedia products? • Who is the audience for specific multimedia products? • How are multimedia products used in everyday life?

Year 9						
	HT1 Topic/Unit: E-Safety	HT2 Topic/Unit: Data Representation	HT3 Topic/Unit: Digital World	HT4 Topic/Unit: Advanced Website Development	HT5 Topic/Unit: Animation	HT6 Topic/Unit : Digital Graphics
Key Content:	<p>Netiquette, Inappropriate, Anonymous, Oversharing, Permanent, Online Reputation, Digital Footprint, Reputation, Body Image, Portrayed, Self-esteem, Self-confidence, Influence, Objectified, Perception, Ethical, Hacker, Cybercrime, Malware, Piracy, Computer Misuse, Cyber-attack, DDOS attack, Worm, Virus, Ethical Hacking, Ransomware, Brute force, Encryption, Decryption, Security,</p> <p>E-Safety</p> <ul style="list-style-type: none"> • What is online reputation? • What is a digital footprint? • What is a positive digital footprint? • What is a negative digital footprint? • What is body image? • What does perception mean? • Who influences your body image? • How can a positive body image be created? • How can image manipulation have an impact on how people perceive their own body image? • What is a hacker? • What does unauthorised mean? • What does authorise mean? • What is ransomware? • How does ransomware work? • What is bitcoin? • Why would a hacker request to use bitcoin? • How does a DDOS attack work? • What do ethical hackers get paid to do? • What is penetration testing? • What does black hat hacker do? 	<p>Data representation, data, binary, base 2 number system, Denary, Convert, base 10 number system, Bit, Byte, Nibble, 8-bit binary numbers, Image representation, Binary images, Pixels, Resolution, Colour depth, Bitmap image, File Size, File Types, Hexadecimal, base 16 number system, RGB Colour system, Hex Code, ASCII code, Unicode, Characters, Character Set, Encode, Decode,</p> <p>Data Representation</p> <ul style="list-style-type: none"> • How are images represented by the computer? • What is binary? • What base system is binary and why? • What is a bit? • What is half of a byte called? • How has the converter been created? • If the computer has to store information about a detailed image what does this mean for file size? • How does colour depth and resolution impact file size? • How do you know if an image has low resolution? • How is a bitmap image created? • Who uses binary? • How are images represented by binary? • What is colour depth? • Who uses hexadecimal? • Why is hexadecimal a base 16 number system? • What does RGB stand for? • What does Ascii stand for? • Explain how Ascii is used by the computer? • What is the difference between Ascii cod and Unicode? • What is extended Ascii? • How many characters can Ascii code represent? • 	<p>Digital World, AI, Artificial, Intelligence, Ethical, CAPTCHA, Turing Test, Algorithms, Sensors, Thermostat, Future, Machine Learning, Autonomy, Adaptivity, Artificial Intelligence, Machine Learning, Deep Learning, Decision Tree, Chatbot, bot, Imitation,</p> <p>Digital World</p> <ul style="list-style-type: none"> • What does AI stand for? • How do you think AI is the future? • Are computers smarter than humans? • How are the two bots similar? • How are they different? • Which seemed more like you were talking to a human? • Do you think it would pass the Turing test? • What did the bots do "wrong" in terms of passing as a human? • Were the chatbots intelligent or did they behave intelligent? • What is a bot? 	<p>Dreamweaver, Website, Header, body, footer, Tags, Images, Folder, Navigation, Drop down menu, Photoshop, Table, Frames, Alt Tags, HTML, Content, Consistency</p> <p>Advanced Website Development (Dreamweaver)</p> <p>What are roll over buttons? How are roll over buttons created? How can a website use a table? Why are folders important in a website? What does CSS stand for?</p> <ul style="list-style-type: none"> • How has CSS been applied in the website? 	<p>Frames, key frames, Animate, Timeline, Properties, Action Script, Remove Keyframes, Layers, Object, Rotate, Transform, Edit, Motion Tweens, Classic Tweens, Shape Tweens, Modify, Frame Rate, Scale, Skew, Rotation, File Format, Animation Software</p> <p>Animation</p> <p>What is animation? Where are animations used? Give examples of where you have seen animation being used? What is frame rate? How does frame rate effect an animation? What is a timeline? Why is a time line important when using animation?</p>	<p>Photoshop, Move Tool, Page Layout, Double Page Spread, Border, Layers, Layer effects, Masks, Blending, Professional, Transparent, Filters, Image Adjustments, Image File Types</p> <p>Digital Graphics – Annual Creation</p> <p>What are digital graphics? Give an example of a type of digital graphics? Where do you see digital graphics? How are they created? What is page layout? What is a double page spread? What does transparent mean?</p>

Year 10						
	HT1 Topic/Unit: R094 – Digital Graphics	HT2 Topic/Unit: R082 – Digital Graphics	HT3 Topic/Unit: R082 – Digital Graphics	HT4 Topic/Unit R082 – Digital Graphics R081 Pre-Production Techniques	HT5 Topic/Unit R082 – Digital Graphics R081 Pre-Production Techniques	HT6 Topic/Unit: R081 Pre-Production Techniques
Key Content: -	<p>Product, Pre-Production, Audience, Influence, Text, Images, Background, Bold, Bright, JPEG, PDF, PNG, PSD, GIF, Print, Web, Age, Gender, Ethnicity, Location, Income, Defamation, Copyright, Privacy, Project, Work plan, Contingency, Milestone, Asset, Re-purpose.</p> <p>Practice Project -R082 Task 1.1 – Existing Products Task 1.2 – File Formats Task 2.1 – Client Requirements Task 2.2 – Target Audience Task 2.3 – Legal Issues Task 2.4 – Work plan Task 3.1 – Assets Task 3.2 – Repurposing Assets</p> <ul style="list-style-type: none"> • Why was it created? • What is its purpose? • What does it aim to achieve? • What is a file format? • What formats are used in digital graphics? • What does the acronym stand for? • What are the limitations of the file formats? • Are they used for print or web? • Who is the client? • What have you been asked to create? • Who is it aimed at? • How has the audience influenced the design? • What is a workplan? • What is a contingency? • What is a milestone? • What is copyright? • What is defamation? • What is privacy? • What is an asset? • What does repurpose mean? • 	<p>Image, Editing, Software, Manipulation, Re-purpose, Filter, Tools, Techniques, Brush Tool, Clone Tool, Background removal tool, Selection Tools, Text Tools, Brightness, Contrast, Eraser, Shapes, Filters, Fonts, Extracting Files, Download, Levels, Curves, Layers, Blending, Stroke, Fill, Gradient, Layer Masks.</p> <p>Practice Project – R082 November Mock</p> <p>Task - Image Editing Skills – 1 Image Editing Skills – 2 Image Editing Skills – 3 Task 3.3 – Poster Creation Task 4.1 - Evaluation</p> <ul style="list-style-type: none"> • What is image manipulation? • How can an image be changed? • What software is used for image editing? • What is an example of a selection tool used in image editing software? • Explain how your image has been edited? • What tools/techniques have you used to manipulate and repurpose the image? • How does your poster meet the requirements of the client? • How might the poster be improved? • How could the poster be developed further? 	R082 – Controlled Assessment	R082 – Controlled Assessment R081 - March Mock	R082 – Controlled Assessment	R081 Official Exam – First Attempt (June)

Year 11						
	HT1 Topic/Unit: R094 – Digital Graphics	HT2 Topic/Unit: R082 – Digital Graphics	HT3 Topic/Unit: R082 – Digital Graphics	HT4 Topic/Unit R082 – Digital Graphics R081 Pre-Production Techniques	HT5 Topic/Unit R082 – Digital Graphics R081 Pre-Production Techniques	
Key Content: -	R087 –Multi-media Practice Project – DayzOut	R087 – Creating a multimedia product – Controlled assessment.	R085 – Creating a multipage website – Controlled Assessment R081 – Official Exam (Jan)	R085 – Creating a multipage website – Controlled Assessment	R085 – Creating a multipage website – Controlled Assessment	