Year 8 Curriculum Map : Computing

	Autumn		Spring		Summer	
Assessment Objectives	AO1: Demonstrate knowledge and understanding of the key concepts and principles of computer science. AO2: Apply knowledge and understanding of key concepts and principles of computer science. AO3: Analyse problems in computational terms: • to make reasoned judgements • to design, program, evaluate and refine solutions.					
Unit	Computing 1 Topic – App Development	Computing 2 Topic – Impacts of Technology	Computing 1 Topic – Networks and html	Computing 2 (Taught during Design tech time) Topic – IDEA AWARD	Computing 1 Topic – Networks and html	Computing 2 Topic –Binary, Images and Photoshop
Key Learning Outcomes	1. Uses of apps 2. Controlling flow of programs 3. App design and Debugging 4. User inputs Knowledge audit test. 5. Variables. 6. Assessment and D.I.R.T lesson	1. Legal impacts – Legislation 2. Ethical impacts – Digital divide 3. Ethical impacts – AI & machine learning 4. Environmental impacts. Self/peer assessment	1. What is a network? 2. Network topologies 3. www & the internet Knowledge audit test. 4. HTML intro 5. HTML headings 6. HTML web pages Knowledge audit test.	1. Complete IDEA award tasks. 2. Complete IDEA award tasks. 3. Complete IDEA award tasks. 4. Complete IDEA award tasks. 5. Complete IDEA award tasks. 6. Complete IDEA award tasks.	1. Digital footprint 2. Styling and CSS Knowledge audit test. 3. Mini HTML project 4. Intellectual property & Using images. 5. Websites and Styling 6. Assessment and D.I.R.T lesson	1. Logic gates and the CPU 2. Binary conversions. 3. Images Knowledge audit test 4. Photoshop – Spoof images 5. Photoshop – Magazine 6. Self/peer assessment
Prior knowledge	KS2: Pupils should be taught to design, write and debug programs simulating real world systems; including a secure knowledge of key programming techniques. Pupils should be taught to use technologies safely and search technologies effectively. Pupils should be able to explain how simple algorithms work. Pupils should understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.					
CEIAG Specific careers links	**Link to careers routes:** App development and design, Graphic design, Web design, It engineering. **Topics to be delivered by employers:** Programming and Design. **Link to personal skills:** problem solving, resilience, creativity, Numeracy, Logical thinking.					
RRSA	Article 16: right to privacy Article 17: Access to information from the media. Article 28: Right to education		Article 28: Right to education Article 29: Goals of education		Article 17: Access to information from the media. Article 28: Right to education Article 29: Goals of education	
Cross curricular links	**Maths** – Key programming terminology, programming operators, Collecting and manipulating data, number systems, binary conversions. **Science** – Key programming terminology, Environmental impacts of technology, precious metals and finite resources, circuits in a computer. **DT** – Copyright in design, Ethical impacts of design. **History** – Tim Berners Lee – Development of the www. **Personal Development –** Self-image, manipulation of images in the media, online safety.					
Useful websites/videos	Convert Binary to Decimal - https://www.youtube.com/watch?v=zQAE4W3IesM&list=PL04uZ7242_M6K0uRmPXwAIb5w9kYOx86c&index=3 Convert Decimal to Binary - https://www.youtube.com/watch?v=M39G3TxoJs0&list=PL04uZ7242_M6K0uRmPXwAIb5w9kYOx86c&index=4 What is the WWW? - https://www.youtube.com/watch?v=J8hzJxb0rpc&t=117s					

Wider Reading	Can artificial intelligence be sentient? - https://www.theguardian.com/technology/2022/aug/14/can-artificial-intelligence-ever-be-sentient-googles-new-ai-program-is-raising-questions
Literacy Programme	• Decode it NOW, Review it now, Glossary pages for key terminology. • Sentence Starters • Guided practice/model answers • Immersive reader function in office 365. • Reciprocal reading tasks.
Independent Learning Tasks	Knowledge organiser recall questions. Students are asked to complete these to prepare for knowledge audits and assessments. Know it, Think it, Grasp it questions. OneNote catch up tasks.