Year 9 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	**Topic – Media and Graphics**	**Topic – Python and Microbits**	**Topic – Computer Systems**
Key Learning Outcomes	1. Sectors, products and roles in the media. 2. Raster Vs Vector _ Quality images Knowledge audit test. 3. Photoshop Skills – Retouching Self assessment of skills 4. Photoshop Skills – Contrast and Colour 5. Photoshop Skills – Layout and layers 6. Illustrator Skills – Typography and Logos. 7. Assessment and D.I.R.T lesson.	1. Physical computing intro 2. Bare bones – Writing programs using inputs and outputs. 3. Connection – Writing programs that allow devices to communicate. Self assessment of skills 4. Dream it up – Creative programming solutions. 5. Build it up – Creative programming solutions. Knowledge audit test. 6. Wrap it up – Creative programming solutions. 7. Assessment and D.I.R.T lesson.	1. Hardware and Software 2. Internal Hardware 3. CPU performance 4. Secondary Storage. Knowledge audit test. 5. Embedded systems 6. Assessment and D.I.R.T lesson.
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 able to explain how simple algorithms work. Pupils should be able to use a variety of software and devices to collect, present, analyse, evaluate and present data.		
CEIAG Specific careers links	**Link to careers routes:** Graphic Design, Animation, Game Design Engineer, Programmer, Robotics. **Topics to be delivered by employers:** Software development, Robotics, IT **Link to personal skills:** problem solving, resilience, creativity.		
RRSA	Article 12: respect for the views of the child Article 16: right to privacy Article 17: Access to information from the media.	Article 3: best interests of the child Article 28: Right to education Article 29: Goals of education	Article 3: best interests of the child Article 28: Right to education Article 29: Goals of education
Cross curricular links	**Maths** – Key programming terminology, Programming operators, Excel calculations, Collecting and manipulating data, Cryptography, Random number generation, famous mathematicians **Science** – Key programming terminology, circuits and voltages inside a computer. **DT** – Engineering and programming for real world solutions.		
Useful websites/videos	Photoshop tips - https://www.youtube.com/watch?v=OjRqZiAgoHo&t=285s Vector and Raster Graphics - https://www.youtube.com/watch?v=-Fs2t6P5AjY		
Wider Reading	Decision point – George Boole - https://www.google.co.uk/books/edition/Decision_Points/UgzG0I8WkloC?hl=en&gbpv=1&dq=cpu+george+boole&pg=PA1&printsec=frontcover		
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.