Year 7 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 - Office 365 Skills	Computing 2 Topic – Esafety/Spreadsheet skills	Computing 1 Topic – Algorithms	Computing 2 (Taught during Design tech time) Topic – IDEA AWARD	Computing 1 Topic – Scratch Programming	Computing 2 Topic – Computers and Cryptography
Key Learning Outcomes	1. Baseline assessment 2. Cloud Storage - Using OneDrive 3. Professional emails – Using outlook. 4. Working collaboratively - Using Teams Knowledge audit test. 5. Working collaboratively – Using PowerPoint. 6. Assessment and D.I.R.T lesson.	1. Digital footprint. 2. Finding reliable information, research skills. 3. Game addiction. Knowledge audit test. 4. Excel – Collecting data 5. Excel – Calculations 6. Excel – Graphs and formatting. 7. Self/peer assessment	1. Computational thinking 2. Searching and sorting algorithms Knowledge audit test. 3. Microbit intro 4. Traffic lights – Microbit. 5. Assessment and D.I.R.T lesson.	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. Rock band – Inputs 2. Lost in space – Loops 3. Ghostbusters – Random numbers 4. Chatbot – Concatenation and variables. Knowledge audit test. 5. Paint box – Broadcasting 6. Boat Race – Operators and Sensors. 7. Assessment and D.I.R.T lesson.	1. Development of technology 2. Bletchley Park 3. Cryptography Knowledge audit test. 4. Create multimedia product for Bletchley Park. 5. Create multimedia product for Bletchley park. 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 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: working in IT, Cyber security, Game development, Programmer, Designer, Robotics. Topics to be delivered by employers: employers from game companies, robotics engineers, IT Technicians. 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, historical scientists. DT – Materials used in the development of technology. Engineering and programming for real world solutions.. History – The History of Computing and the impact of computer scientists during WW2.					
Useful websites/videos	Tips for using onenote - https://www.youtube.com/watch?v=RZK97ZZ_OyU Alan Turing - https://www.youtube.com/watch?v=ynTAFPukXBk					

Wider Reading	Capturing of enigma - https://www.theguardian.com/world/2017/oct/20/enigma-code-u-boat-u559-hms-petard-sebag-montefiori
	Katherine Johnson and NASA - https://kids.nationalgeographic.com/history/article/katherine-johnson
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.