Computing Curriculum Map 2018-2019

	TERM 1	TERM 2	TERM 3	TERM 4	TERM 5	TERM 6
7	**Key themes covered:** • e-safety • Computational Thinking • Bias & Reliability	**Key themes covered:** • Decomposition • Abstraction • Algorithms	**Key themes covered:** • Boolean logic • And Or Not	**Key themes covered:** • Arrays & Lists • Procedures & Functions	**Key themes covered:** • Systems Development • MicroPython	**Key themes covered:** • Errors and Documenting code • Designing Algorithms
	Key assessments: • Computational thinking Test • e-safety Test • Bias & Reliability	**Key assessments:** • Decomposition Test • Abstraction Test • Algorithms Test	**Key assessments:** • Programming Project • Synoptic Test	**Key assessments:** Programming Project	**Key assessments:** Programming Project	**Key assessments:** Test
	Enrichment:	**Enrichment:** Hour of Code	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**
	Homework:	**Homework:**	**Homework:**	**Homework:**	**Homework:** **Research Project**	**Homework:**
8	**Key themes covered:** • Personal Data & Security • Programming theory	**Key themes covered:** • Sequence • Selection • Iteration • Python programming	**Key themes covered:** Hardware research project	**Key themes covered:** Iteration While Comparative Operators	**Key themes covered:** • Duke of York Bronze Award • e-commerce • Digital Security	**Key themes covered:** • Duke of York Bronze Award • Digital Creators
	Key assessments: • Programming Theory Test	**Key assessments:** Programming project Test	**Key assessments:** • Hardware research task • Test	**Key assessments:** • Programming Task • Test	**Key assessments:** Duke of York Portfolio	**Key assessments:** • Duke of York Portfolio • Hour of Code

	• Programming Project					
	Enrichment:	**Enrichment:** Hour of Code	**Enrichment:**	**Enrichment:**	**Enrichment:** Research Project	**Enrichment:**
	Homework:	**Homework:**	**Homework:**	**Homework:**	**Homework:**	**Homework:** Research Project
9	**Key themes covered: OO** Programming Java	**Key themes covered:** Programming in Python	**Key themes covered:** • Ethics • Impact on Society • Laws	**Key themes covered:** Security & Robustness of systems	**Key themes covered:** Low Level Languages HTML	**Key themes covered:** Mini NEA
	Key assessments: Greenfoot Project Test	**Key assessments:** Mini NEA	**Key assessments:** Unit Test	**Key assessments:** Unit Test	**Key assessments:** Unit Test	**Key assessments:** Mini NEA Project
	Enrichment:	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**
	Homework: • Basic Computer System Model • Test • Importance of computers • Test • Professional Standards • Test	**Homework:** • Considerations when creating computer systems • Test • Number Units • Test • Revision • Revision	**Homework:** • Number Systems • Characters • Test • Images • Sound • Test • Instructions • The CPU • Test • Memory	**Homework:** • Secondary Storage • Innovation in Computer design • Test • Input & Output devices • Test • Binary Logic • Test	**Homework:** • Operating Systems • Test • Software • Application software • Test	**Homework:** • The Database Concept • DBMS • Test • Revision

10	Key themes covered:	Key themes covered:	Key themes covered:	Key themes covered:	Key themes covered:	Key themes covered:
	• Advance Python • System Components	• Boolean Number Systems • NEA Mock	• Networks • Number Systems • Data Types	• Data Representation • Low Level programming languages	• Operating systems • Application Software • System software	• IDE • Software engineering
	Key assessments: Mini NEA A03 Exam	**Key assessments:** **Exam** NEA	**Key assessments:**	**Key assessments:**	**Key assessments:**	**Key assessments:**
	Enrichment:	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**
	Homework: • Network Topologies • Advantages & Disadvantages • Wide area networks • How devices communicate on a network • Wired and wireless connections • Networking hardware • Networking hardware 2 • Networking hardware	**Homework:** • Types of network • Servers • Test • The internet • Connecting to the Internet • Protocols • Test • Internet Protocols	**Homework:** • Test • Web pages and web apps • APIs • Client-side and server-side scripts • Client -side • Server Side • Cloud Computing	**Homework:** • Web Languages • HTML • Test • Security • Network policies • Network security failures • Test	**Homework:** • Introducing binary • Bits and bytes • Binary and denary • Place values • Converting binary to denary	**Homework:** • Converting denary to binary: Method 1 • Converting denary to binary: Method 2 • Bit number patterns • Test • Running a program • Instructions • Instruction sets

11	Key themes covered: Practice NEA	Key themes covered: Component 1	Key themes covered: Live NEA Completion	Key themes covered: Live NEA Completion Component 2	Key themes covered: Greenfoot examinations task practice	Key themes covered: Component 1 & 2 Revision
	Key assessments: **Practice NEA Project**	**Key assessments:** Mock Exam	**Key assessments:** Unit test	**Key assessments:** Unit test	**Key assessments:** Mock Practice	**Key assessments:** **Component 1 & 2 exam**
	Enrichment:	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**	**Enrichment:**
	Homework: • Pixel Booster • Pack • Revision • Number Systems • Operators • Binary • Binary Addition • Binary Conversion	**Homework:** • Hexadecimal • Hex to Binary • Binary to Hex • Denary to Binary • Denary to Hex • Revision • Revision	**Homework:** • Seneca • Python Skills • NEA Project development	**Homework:** • Web Languages • HTML • Test • Instructions • The CPU • Test • Memory	**Homework:** • Networking hardware • Networking hardware 2 • Networking hardware • Types of network • Servers • Test	**Homework:** Revision