



RGS Computing Course Summaries 2015-2016

Timing	1 st Form	2 nd Form	3 rd Form	4 th Form	5 th Form	6 th Form	7 th Form
Autumn Term	Network Skills	Advanced programming using Scratch	Computer systems	Practical:	Controlled Assessment: Task set by the exam board and a solution programmed in Python	Theory: Information, Systems & Applications	Structured assignment tasks, set annually by OCR
	Email		Fundamental programming techniques with Scratch:	Introduction to Python			
	Computer Systems: Input Processing Storage Memory Output		Expressions & Types; Variables & Constants; Selection; Repetition:	Theory: Fundamentals of computer systems; Hardware			
	Computer Systems: Internal Hardware	Advanced Text Programming using Robomind	Program planning techniques: Algorithms; Flowcharts; Pseudocode;		Algorithms	Skills development for practical tasks: Spreadsheets; Web development	
	DTP						
	Computer Systems: Software		Fundamental principles of programming in Python: Variable; if / elif; For loops; While loops; Inputs; List;				
	Computational Thinking: Decomposition of a problem Algorithms Sequencing of Instructions						

	<p>Pattern Recognition Abstraction</p> <p>Spreadsheets</p> <p>Introduction to Scratch programming environment</p> <p>Algorithms, Decompose, Sequencing, Computational Thinking Generalisation, Abstraction</p>		Functions				
Spring Term	<p>Programming using graphical environments:</p> <p>Sequencing Abstraction Pattern Recognition Event Programming Variables Operators and using maths in programming Iteration Decomposition Procedures Parallel coding If statements</p>	<p>Introduction to Python programming using CodeCombat</p> <p>Python Programming</p> <p>Data Types Working with strings Working with numbers Operators Variables If Statements</p>	<p>Further Python programming development</p> <p>Internet theory: Hardware; Standards; Protocols; Data Compression; Encryption; Packet switching; Routing; Cookies; Search engines</p>	<p>Practical: Further programming in Python</p> <p>Theory: Software; Data representation</p>	<p>Practical: Greenfoot Java and HTML skills in preparation for practical exam.</p> <p>Theory: Computer Software; Ethical, social and legal aspects;</p> <p>Review of the whole course</p>	<p>Theory: Information, Systems & Applications</p> <p>Skills development for practical tasks: Databases</p>	<p>Structured assignment tasks, set annually by OCR</p>

	<p>Broadcasts</p> <p>Computational Thinking:</p> <p>Algorithms, Decompose, Sequencing, Computational Thinking Generalisation, Abstraction Recursion, Procedures Selection, Variables.</p>	<p>For Loops</p> <p>While Loops</p> <p>Turtle graphs</p>					
Summer Term	<p>Robomind (Text based Programming):</p> <p>Sequencing</p> <p>Abstraction</p> <p>Pattern Recognition</p> <p>Event Programming</p> <p>Variables</p> <p>Operators and using maths in programming</p> <p>Iteration</p> <p>Decomposition</p> <p>Procedures</p> <p>Parallel coding</p> <p>If statements</p> <p>IF else statements</p> <p>Introduction to Python programming using CodeCombat</p>	<p>Programming using Python:</p> <p>Sequencing</p> <p>Abstraction</p> <p>Pattern Recognition</p> <p>Event Programming</p> <p>Variables</p> <p>Operators and using maths in programming</p> <p>Iteration</p> <p>Decomposition</p> <p>Procedures</p> <p>Parallel coding</p> <p>If statements</p> <p>IF else statements</p> <p>Functions</p> <p>Data Types</p> <p>Compare Python syntax with Scratch</p>	<p>Website Development:</p> <p>HTML</p> <p>CSS</p>	<p>Practical:</p> <p>Mock coursework task in Python</p> <p>Theory:</p> <p>Networks;</p> <p>Programming Theory</p>	<p>Exams – practical and theory</p>	<p>Theory:</p> <p>Information, Systems & Applications</p> <p>Exam</p>	<p>Structured assignment tasks, set annually by OCR</p>

		Importance of commenting code Dealing with Errors Bug fixing Random number					
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