



Debenham High School
Department of Computing

Key Stage 3 Computing Programme of Study Overview

	Autumn Term		Spring Term		Summer Term	
Year 7	Baseline Assessment Introduction to Touch Typing*	Unit 7.1 Data and the CPU	Unit 7.2 Introduction to Python Programming	Unit 7.3 Information Technology	Unit 7.4 Computational Thinking	Unit 7.5 Creative Communication
Year 8	Unit 8.1 Data and the CPU	Unit 8.2 Introduction to Flash animation	Unit 8.3 Python Programming	Unit 8.4 Information Technology	Unit 8.5 Computational Thinking	Unit 8.6 Creative Communication
Year 9	Unit 9.1 Data and the CPU Information Technology	Unit 9.2 Introduction to Small Basic	Unit 9.3 Programming Project	Unit 9.4 Digital Image Manipulation	Unit 9.5 Creative Communication	Unit 9.6 Python Programming

**Touch Typing is introduced in Year 7. All students are expected to do touch typing regularly as part of their weekly homework.*



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Computing Programme of Study

Year 7	Year 8	Year 9
<p>Unit 7.1 Data and the CPU</p> <ul style="list-style-type: none"> • What is a computer? • What is a byte? • From decimal to binary • Counting in binary • Using codes • The codes computer use 	<p>Unit 8.1 Data and the CPU</p> <ul style="list-style-type: none"> • Bits and bytes and base 2 • Adding in binary • Measuring computer memory • Digital images • How computers store true colour • Image quality 	<p>Unit 9.1 Data and the CPU</p> <ul style="list-style-type: none"> • What happens inside the CPU? • Fetch-decode-execute cycle • Arithmetic and logic • Combining logic statements • Logic gates • Logic gate simulator
<p>Unit 7.2 Introduction to Python</p> <ul style="list-style-type: none"> • Begin Python • Create and run a program • Variables • Plan a process • Your answer: right or wrong • Keep score 	<p>Unit 8.2 Introduction to Flash animation</p> <ul style="list-style-type: none"> • What is animation? • Tweening • Motion tweening • Shape tweening 	<p>Unit 9.2 Introduction to Small Basic Programming</p> <ul style="list-style-type: none"> • Data types • Operators • Using variable and constant • Selection statement • Repetition statement
<p>Unit 7.3 Information Technology</p> <ul style="list-style-type: none"> • Hardware: understanding input devices • Identifying output and storage devices • Understanding software • Connecting computers together • Staying safe on the Internet 	<p>Unit 8.3 Python Programming</p> <ul style="list-style-type: none"> • Calculate • Repeat • Exit condition • Make a list • Find the largest value in the list • Validate input 	<p>Unit 9.3 Small Basic Programming</p> <ul style="list-style-type: none"> • Programming project



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Unit 7.4 Computational Thinking <ul style="list-style-type: none">• What is computational thinking?• Patter recognition• Flowcharts• Selection and If...then... statements• Loops• Evaluation	Unit 8.4 Information Technology <ul style="list-style-type: none">• Connecting to the Internet• Hardware and Protocols for the Internet• Sending data• Searching the web• Narrowing your search• Following your route online	Unit 9.4 Digital Image Manipulation <ul style="list-style-type: none">• Using eraser tool• Using filter• Manipulating layers• Cloning and healing tools• Burn and dodge• Text
Unit 7.5 Creative Communication <ul style="list-style-type: none">• Starting HTML• Using tags• Formatting text• Designing your web page• Creating a web page• Editing a web page	Unit 8.5 Computational Thinking <ul style="list-style-type: none">• What do I know?• Using pseudocode• Exhaustive search algorithms• Sort algorithms• More search algorithms• The fastest route	Unit 9.5 Creative Communication <ul style="list-style-type: none">• The impact of information technology• Using technology responsibly• Creating a report• Creating a slideshow presentation• Creating a survey
	Unit 8.6 Creative Communication <ul style="list-style-type: none">• What do I already know?• Plan your project• Adding structure to your web page• Structuring a web page• Creating HTML links	Unit 9.6 Python Programming <ul style="list-style-type: none">• Make a list• List elements• Random elements• Procedures• Parameters• Save the list



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GCSE Computer Science (9-1) Programme of Study Overview

	Autumn Term		Spring Term		Summer Term	
Year 10	COMP1 System architecture Memory Storage	COMP1 Wired and wireless network COMP2 Python Programming	COMP1 Network topologies, protocols and layers COMP2 Python Programming	COMP1 System security COMP2 Python Programming	COMP1 System software Programming project	COMP1 Ethical, legal, cultural and environmental concerns Programming Project
Year 11	COMP1 Revision COMP2 Algorithms Programming techniques Producing robust programs	COMP1 Revision COMP2 Translator and facilities of languages	COMP1 Revision COMP2 Data representation	COMP1 and COMP2 Revision	COMP1 and COMP2 Revision	



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Creative iMedia Programme of Study Overview

	Autumn Term		Spring Term		Summer Term	
Year 10	Unit R082 Creating Digital Graphics	Unit R082 Creating Digital Graphics	Unit R086 Creating a Digital Animation	Unit R086 Creating a Digital Animation	Unit R085 Creating a Multipage Website	Unit R085 Creating a Multipage Website
Year 11	Unit R081 Pre-production skills	Unit R081 Pre-production skills	Revisit Units R082, R086 and R085	Unit R081 revision	Unit R081 revision	