

YEAR 7 – COMPUTER SCIENCE			
Week	Autumn Term 1	Spring Term 1	Summer Term 1
1	<p><u>Using Computer Safely, effectively and Responsibly</u></p> <ul style="list-style-type: none"> Lesson 1 File management Lesson 2 Social networking Lesson 3 Keeping your data safe Lesson 4 Using email Lesson 5 Searching the web Lesson 6 Assessment 	<p><u>Games Programming in Scratch</u></p> <ul style="list-style-type: none"> Lesson 1 Movement Lesson 2 Lives and scoring Lesson 3 Adding a new level Lesson 4 Randomising the behaviour of sprites Lesson 5 Shooting and jumping Lesson 6 Adding sounds Lesson 7 Testing and assessment Extension lesson Using lists 	<p><u>HTML and Website Development</u></p> <ul style="list-style-type: none"> Lesson 1 HTML Lesson 2 CSS Lesson 3 Design Lesson 4 Development Lesson 5 Creating a web form Lesson 6 Assessment
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6	Revision and assessment	Revision and assessment	Revision and assessment
Week	Autumn Term 2	Spring Term 2	Summer Term 2
1	<p><u>Understanding Computers</u></p> <ul style="list-style-type: none"> Lesson 1 Elements of a computer system Lesson 2 The CPU Lesson 3 Understanding binary Lesson 4 Binary addition Lesson 5 Storage devices Lesson 6 Convergence and new technologies 	<p><u>Graphics</u></p> <ul style="list-style-type: none"> Lesson 1 Introduction to vector graphics Lesson 2 Bitmap graphics Lesson 3 Conveying meaning Lesson 4 Effects and enhancements Lesson 5 Adding text Lesson 6 Assessment and review 	<p><u>App Development in AppShed</u></p> <ul style="list-style-type: none"> Lesson 1 Introduction to Apps Lesson 2 Home screen and navigation Lesson 3 Adding files, links and images Lesson 4 Using map functions Lesson 5 Programming with Blockly Lesson 6 Publishing your App
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6	Revision and assessment	Revision and assessment	Revision and assessment

YEAR 8 – COMPUTER SCIENCE			
Week	Autumn Term 1	Spring Term 1	Summer Term 1
1	<u>Introduction to Coding through Kodu</u>	<u>Computer Crime and Cyber Security</u>	<u>Database Development</u>
2	Lesson 1 How Programs Work	Lesson 1 Email scams	<ul style="list-style-type: none"> Lesson 1 Introduction to databases
3	Lesson 2 Creating Landscapes	Lesson 2 Hacking	<ul style="list-style-type: none"> Lesson 2 Creating a database table
4	Lesson 3 Navigation and Pathing Lesson 4 Clones vs Creatables	Lesson 3 Protecting personal data Lesson 4 Copyright	<ul style="list-style-type: none"> Lesson 3 Queries Lesson 4 Input forms
5	Lesson 5 Pages and Selection	Lesson 5 Health and safety Lesson 6 Assessment	<ul style="list-style-type: none"> Lesson 5 Creating a report Lesson 6 Finishing and testing
6	Revision and assessment	Revision and assessment	Revision and assessment
Week	Autumn Term 2	Spring Term 2	Summer Term 2
1	<u>First Steps in Small Basics</u>	<u>Python: Next Steps</u>	<u>Programming with Game Maker</u>
2	Lesson 1 Introducing the turtle	<ul style="list-style-type: none"> Lesson 1 The basics 	<ul style="list-style-type: none"> Lesson 1 Game analysis
3	Lesson 2 Using a For...EndFor loop	<ul style="list-style-type: none"> Lesson 2 Loops 	<ul style="list-style-type: none"> Lesson 2 Sprites and Objects
4	Lesson 3 The Text window Lesson 4 Using variables	<ul style="list-style-type: none"> Lesson 3 Lists Lesson 4 Procedures 	<ul style="list-style-type: none"> Lesson 3 Enemies and collision detection Lesson 4 Firing projectiles
5	Lesson 5 Conditions and branching Lesson 6 Using random numbers	<ul style="list-style-type: none"> Lesson 5 Functions Lesson 6 Assessment 	<ul style="list-style-type: none"> Lesson 5 Capturing the flag Lesson 6 Testing and assessment
6	Revision and assessment	Revision and assessment	Revision and assessment

YEAR 9 – COMPUTER SCIENCE			
Week	Autumn Term 1	Spring Term 1	Summer Term 1
1	<p><u>Networks</u></p> <ul style="list-style-type: none"> Lesson 1 Digitizing sound Lesson 2 Jobs in the sound industry Lesson 3 Listening and planning Lesson 4 Creating an advertisement Lesson 5 Finishing and exporting Lesson 6 Evaluation and assessment 	<p><u>Python: Next Steps</u></p> <ul style="list-style-type: none"> Lesson 1 The basics Lesson 2 Loops Lesson 3 Lists Lesson 4 Procedures Lesson 5 Functions Lesson 6 Assessment 	<p><u>Introduction to Visual Basics</u></p> <p>Lesson 1 Regular expressions</p> <p>Lesson 2 Using lists</p> <p>Lesson 3 Sorting lists</p> <p>Lesson 4 Reading from a file</p> <p>Lesson 5 Writing to a file</p>
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6	Revision and assessment	Revision and assessment	Revision and assessment
Week	Autumn Term 2	Spring Term 2	Summer Term 2
1	<p><u>App Development in AppShed</u></p> <ul style="list-style-type: none"> Lesson 1 Introduction to Apps Lesson 2 Home screen and navigation Lesson 3 Adding files, links and images Lesson 4 Using map functions Lesson 5 Programming with Blockly Lesson 6 Publishing your App 	<p><u>Control Systems and Flowal</u></p> <ul style="list-style-type: none"> Lesson 1 Flowcharts (Controlling lights at a zebra crossing and crossing patrol) Lesson 2 Sequencing (Controlling traffic lights) Lesson 3 Navigation and Pathing Lesson 4 Subroutines (Controlling Pelican crossing lights) Lesson 5 Actuators (Car Park control systems) Lesson 6 Variables (A digital 7-segment display) and Assessment 	<p><u>Database Development</u></p> <ul style="list-style-type: none"> Lesson 1 Introduction to databases Lesson 2 Creating a database table Lesson 3 Queries Lesson 4 Input forms Lesson 5 Creating a report Lesson 6 Finishing and testing
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6	Revision and assessment	Revision and assessment	Revision and assessment

YEAR 10 – COMPUTER SCIENCE			
Week	Autumn Term 1	Spring Term 1	Summer Term 1
1	<u>Practical</u> Introduction Python	<u>Practical</u> Next Steps in Small Basic	<u>Practical</u> Creating Console Games in Game Maker
2	<ul style="list-style-type: none"> Lesson 1 Introducing Python 	<ul style="list-style-type: none"> Lesson 1 Introduction 	<ul style="list-style-type: none"> Lesson 1 Game analysis
3	Lesson 2 Numbers and arithmetic	<ul style="list-style-type: none"> Lesson 2 Calculations 	<ul style="list-style-type: none"> Lesson 2 Sprites and Objects
4	<ul style="list-style-type: none"> Lesson 3 Selection Lesson 4 Writing algorithms 	<ul style="list-style-type: none"> Lesson 3 Selection Lesson 4 Loops 	<ul style="list-style-type: none"> Lesson 3 Enemies and collision detection
5	<ul style="list-style-type: none"> Lesson 5 While loops Lesson 6 Searching Lesson 7 Assessment <u>Theory</u> Unit 6: Ethics Lesson 1 Copyright and plagiarism Lesson 2 The spread of computer systems Lesson 3 Issues of electronic communication	<ul style="list-style-type: none"> Lesson 5 Using subroutines Lesson 6 Evaluating the model <u>Theory:</u> Unit 3: Hardware <ul style="list-style-type: none"> Lesson 1 Logic gates Lesson 2 Logic circuits Lesson 3 Computer architecture Lesson 4 Memory Lesson 5 Storage Lesson 6 Assessment 	<ul style="list-style-type: none"> Lesson 4 Firing projectiles Lesson 5 Capturing the flag Lesson 6 Testing and assessment <u>Theory:</u> Unit 5: Software and Security <ul style="list-style-type: none"> Lesson 1 Operating systems and applications Lesson 2 System utilities Lesson 3 Safety of data Lesson 4 Encryption Lesson 5 Online system security and High and low level languages
6	Revision and assessment	Revision and assessment	Revision and assessment

Week		Spring Term 2	Spring Term 2
1	<u>Practical</u> Introduction to Visual Basics	<u>Practical</u> Programming Apps in App Inventor	<u>Practical</u> Creating Console Games in Game Maker
2	Section 1 - Preparation and programming skills	<ul style="list-style-type: none"> Module 1: Introduction to AI2 and Event-Driven Programming Module 2: Build Drawing, Animation, and Game apps Module 3: Build Apps with Texting and Location Sensing Module 4: Build Quizzes and other Informational Apps Module 5: Create New Blocks-- Define Procedures Module 6: Build Apps with User-Generated Data Module 7: Build Apps that Communicate with the Web 	<ul style="list-style-type: none"> Lesson 1 Game analysis Lesson 2 Sprites and Objects Lesson 3 Enemies and collision detection Lesson 4 Firing projectiles Lesson 5 Capturing the flag Lesson 6 Testing and assessment
3	Lesson 1 Regular expressions		
4	Lesson 2 Using lists		
5	Lesson 3 Sorting lists		
	Lesson 4 Reading from a file Lesson 5 Writing to a file		
	<u>Theory</u> Unit 2:Communication and Internet Technologies	<u>Theory:</u> Unit 4: Input and Output Devices	<u>Theory:</u> Unit 1: Data Representation
	<ul style="list-style-type: none"> Lesson 1 Data transmission Lesson 2 Error checking and correction Lesson 3 Introduction to the internet Lesson 4 Internet principles of operation Lesson 5 Security aspects Lesson 6 HTML structure and presentation 	<ul style="list-style-type: none"> Lesson 1 Input devices Lesson 2 Scanners and barcode readers Lesson 3 Sensors Lesson 4 Output devices Lesson 5 Printers 	<ul style="list-style-type: none"> Lesson 1 Binary Systems Lesson 2 Hexadecimal Lesson 3 Storing text in ASCII Lesson 4 Representation of images Lesson 5 Representation of sound and Data compression Lesson 6 Assessment
6	Revision and assessment	Revision and assessment	Revision and assessment

YEAR 11 - CS			
Week	Autumn Term 1	Spring Term 1	Summer Term 1
1	<u>Practice Controlled Assessment</u>	<u>Controlled Assessment</u>	<u>Controlled Assessment</u>
2	Task 1: Analysis and Design	Task 1: Analysis and Design	Review CA
3	Task 2: Implement Coding	Task 2: Implement Coding	<u>Theory – Data</u>
4	<u>Theory – Data Representation</u>	<u>Theory – System Database and Design</u>	Lesson 1 Storage units and binary numbers
5	Lesson 1 Storage units and binary numbers Lesson 2 Representation of numbers and characters Lesson 3 Binary arithmetic Lesson 4 Images Lesson 5 Sound Lesson 6 Compression and data encryption Lesson 7 Databases Lesson 8 Assessment	Lesson 1 Tables, records and fields Lesson 2 Entities and relationships Lesson 3 Queries and SQL Lesson 4 Program-data independence Lesson 5 The DBMS Lesson 6 Assessment	Lesson 2 Representation of numbers and characters Lesson 3 Binary arithmetic Lesson 4 Images Lesson 5 Sound Lesson 6 Compression and data encryption Lesson 7 Databases Lesson 8 Assessment
6	Revision and assessment	Revision and assessment	Revision and assessment

Week	Autumn Term 2	Spring Term 2	Summer Term 2
1	<u>Practice Controlled Assessment</u>	<u>Controlled Assessment</u>	Exam Revision
2	Task 3: Review	Task 3: Review	
3	Task 4: Testing and Improve Solution	Task 4: Testing and Improve Solution	
4	<u>Theory – Algorithm and Programming</u>	<u>Theory – The Bigger Picture</u>	
5	Lesson 1 Computational thinking	Lesson 1 Environmental impact of technology	
	Lesson 2 Searching algorithms	Lesson 2 Ethical impact of using technology	
	Lesson 3 Sorting algorithms	Lesson 3 Legal impact of using technology	
	Lesson 4 Flow diagrams	Lesson 4 Assessment	
	Lesson 5 Pseudocode		
	Lesson 6 Interpreting, correcting and completing algorithms		
	Lesson 7 Assessment		
6	Revision and assessment	Revision and assessment	Revision and assessment