

Curriculum Overview (2023_2024)

Computing



Year Group	Autumn 1 (8 weeks)	Autumn 2 (7 weeks)	Spring 1 (5weeks)	Spring 2 (5weeks)	Summer 1 (7weeks)	Summer 2 (7weeks)
7	Clear Messaging in Digital media	What are Computers	Programming essential in Scratch 1	Programming essential in Scratch 1 (Continued) Modelling Data	Modelling Data Using Media – gaining support for a cause	Using Media – gaining support for a cause
Topic / Themes / Content KS3 ASSESSMENT CRITERIA	<ol style="list-style-type: none"> 1. Get the message across 2. Poster Making 3. Brand 4. Creating the brand 5. Adding content 6. Presentation 	<ol style="list-style-type: none"> 1-3 History of Computers 4. Inputs and Outputs 5. Human Computer 6-7 Computer language 8. Computer Networks 	<ol style="list-style-type: none"> 1. Introduction to programming and sequences 2. Sequences and variables 3. Selection 4. Operators 5. Count controlled iteration 6. Problem solving 	<ol style="list-style-type: none"> 6. Problem solving 7. Unit assessment rubic <p>-----</p> <ol style="list-style-type: none"> 1. Getting to know a spreadsheet 2.Quick calculations 	<ol style="list-style-type: none"> 3. Collecting data 4. Become a data master 5. Level up your data skills 6. Assessment <p>-----</p> <ol style="list-style-type: none"> 1. Word processor 2. Licencing appropriate images 3. The credibility of sources 	<ol style="list-style-type: none"> 4. Research and plan your blog 5-6. Promoting your cause 7-8. Assessment
Assessment Week	7. Assessment rubic	Student workbook completed		Programming assessment	Modelling data assessment	Project completed and assessment
Vocabulary	Logo Complementary Descriptive Reflects Communicates Relates	Binary Components CPU RAM LAN WAN	Subroutines Iteration Variable Operator	Cell Columns Row Cell reference Formula	Software Formatting Copyright Licensing Referencing Audience	See column to the left

					Sources	
8	KODU – Visual Coding	App Inventor	Programming essential in Scratch 2	Media - Animations	Developing for the Web	Introduction to Python Programming
Topic / Themes / Content KS3 ASSESSMENT CRITERIA	1.Introduction to KODU 2.Understand and identify use of code 3.Play, answer, share and discuss 4.Creating own game 5.Applying coding skills to own game 6.Peer assessment 7- 8.Portfolio/Report	1.Introduction to Apps/MIT 2 Talk to me 3.Digital Doodle 4.Tap the Knight 5-6 Create your own 7 Assessment	8. You've got the moves 9. Fly cat! Fly 10. Loop de loop 11. Treasure those lists! 12. Translate this part 1 13. Translate this part 2	1.Move, Rotate, scale, colour 2.Animation, names, parenting 3.Complex modes and colours 4.Organic modelling 5.Lights, camera, render 6.Project	1.Website building blocks 2.Words are not enough 3.Taking shortcuts 4.Searching the web 5.Tightening the web 6.Navigating the web	1.First steps 2.Crunching numbers 3.At a crossroads 4.More branches 5.Round and round 6.Putting it all together
Assessment Week	Portfolio and typed evaluation in the form of a report.	Self-assessment evidence	Summative assessment	Rubric	Summative assessment	Summative assessment
Vocabulary	Terrain Path KODU Program Code World Scoring	Navigate Designer Emulator Block editor Resilience Objects Attributes	Sequencing Iteration Conditions Selection operators	Extrude Parenting Attributes Keyframes objects	HTML Attribute Tags CSS Formatting Search engines	Executed Condition Instructions Algorithm Translator Interpreter

9	Layers of a Computing System	Cybersecurity	Python Programming with sequence of data	Sound manipulation in Audacity*	Programming with Micro bits	HTML and Website development*
Topic / Themes / Content KS3 ASSESSMENT CRITERIA	1.Get in gear 2.UNder the hood 3.Orchestra conductor 4.It's only logical 5.Thinking machines 6.Sharing	1.You and your data 2.Social engineering 3.Script kiddies 4.Rise of the bots 5.There is no place like 127.0.0.1 6.Under Attack	1.Warm up 2.Playlist 3.In a while crocodile 4.The famous for 5.Make a thing 6.Wrap up	1.Digitised sound 2.Jobs in the sound industry 3.Listening and planning 4.Creating an advertisement 5.Finishing and exporting		1. HTML 2. CSS 3. Design 4. Development 5. Creating a web form
Assessment Week	Summative Assessment	Summative Assessment	Summative Assessment	Evaluation and assessment		6. Assessment
Vocabulary	Software Hardware Operating System CPU RAM Devices Logical	Data Social engineering Malicious Virus Shouldering Phishing Hacking Malware	Variable Selection Sequence Iteration Condition Append Insert	Amplitude Frequency Sampling Audacity File types		HTML, tags, attribute, CSS, embedded, style, element, text editor, web browser, navigation, hyperlink, template

Year Group	Autumn 1 (8weeks)	Autumn 2 (7weeks)	Spring 1 (5weeks)	Spring 2 (5weeks)	Summer 1 (7weeks)	Summer 2 (7weeks)
10	2.1 Algorithms 2.2 Programming fundamentals	2.3 Producing robust programs	2.4 Boolean Logic	2.5 Programming languages and Intergrated Development Environment	1.6 Ethical, Legal, cultural impacts of digital technology	1.5 Systems Software
Topic / Themes / Content KS4 ASSESSMENT CRITERIA GCSE links	2.1.1 Computational thinking 2.1.2 Designing, creating and refining algorithms 2.1.3 Searching and sorting algorithms 2.2.1 Programming fundamentals 2.2.2 Data types 2.2.3 Additional programming techniques Bitesize CraigDave	2.3.1 Defensive design 2.3.2 Testing	2.4.1 Boolean logic	2.5.1 Languages 2.5.2 IDE	1.6.1 Ethical, legal, cultural and environmental impact	1.5.1 Operating systems 1.5.2 Utility software
Assessment Week	Wk. 8 summative assessment	Wk. 7 summative assessment	Wk.5 Summative Assessment	Wk.5 Summative Assessment	Wk. 7 summative assessment	Wk. 7 summative assessment
Vocabulary	Abstraction Decomposition Pseudocode Flowcharts Sequence	Authentication Validation Normal Boundary Erroneous	AND OR NOT Truth tables	Translators Compilers interpreters Editors	Ethical Legal Cultural Environmental Privacy	Optical Magnetic Capacity Speed Metadata

	Selection Iteration Algorithm				Legislation	Compression
11	2.1 Algorithms 2.2 Programming fundamentals	2.3 Producing robust programs 2.4 Boolean Logic 2.5 Programming languages and Intergrated Development Environment	1.6 Ethical, Legal, cultural impacts of digital technology 1.5 Systems Software 1.4 Network Security	1.3 Computer Networks, connections and protocols 1.2 Memory and Storage 1.1 System Architecture	Exam Preparation and revision	
Topic / Themes / Content KS4 ASSESSMENT CRITERIA GCSE links	2.1.1 Computational thinking 2.1.2 Designing, creating and refining algorithms 2.1.3 Searching and sorting algorithms 2.2.1 Programming fundamentals 2.2.2 Data types 2.2.3 Additional programming techniques Bitesize CraignDave	2.3.1 Defensive design 2.3.2 Testing 2.4.1 Boolean logic 2.5.1 Languages 2.5.2 IDE	1.6.1 Ethical, legal, cultural and environmental impact 1.5.1 Operating systems 1.5.2 Utility software 1.4.1Threats to computer systems and networks 1.4.2Identifying and preventing vulnerabilities	1.3.1 Networks and topologies 1.3.2 Wired and wireless networks, protocols and layer 1.2.1 Primary storage 1.2.2 Secondary storage 1.2.3 Units 1.2.4 Data storage 1.2.5 Compression 1.1 Architecture of the CPU 1.2 CPU performance 1.1.3 Embedded systems	Recap on 1.1 to 1.6 2.1 to 2.5 Exam techniques Careers Post 16	

Assessment Week	Wk. 8 summative assessment	Wk. 7 summative assessment	Wk. 5 summative assessment	Wk. 5 summative assessment	Wk.7 summative assessment	
Vocabulary	Abstraction Decomposition Pseudocode Flowcharts Sequence Selection Iteration Algorithm	Authentication Validation Normal Boundary Erroneous AND OR NOT Truth tables Translators Compilers interpreters Editors	Ethical Legal Cultural Environmental Privacy Legislation Malware Social engineering encryption	RAM ROM Optical Magnetic Capacity Speed Metadata Compression		