DIXONS MIDDLETON ACADEMY

Year 7 Computing - Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1	**Induction New accounts**	**Induction New accounts**	**Using Email and communication**	**Using Office 365**	**Using Office 365**	**TypingClub and Story Writing**	**TypingClub and Story Writing**	**Cyberbullying**	**Sensitive information**	**Copyright**	**Mini Assessment of skills**	**Computer Science week**	
	Logging on and passwords	Intro to Dixon's systems	Outlook and teams best practice	Creating Slides and learning shortcuts	Creating Slides and learning shortcuts	Students learn touchtyping and apply it to story writing	Students learn touchtyping and apply it to story writing	Mean through a screen. Use of digital tech, not just the internet	What can and cannot be posted	Legal rules and pirated data		Computer Science week	
Cycle 2	**Data Modelling**	**Data Modelling Formulas**	**Data Modelling Formatting**	**Data Modelling All skills**	**Algorithms**	**Algorithm / pseudocode**	**Revision window**	**Assessment window**	**Algorithms / flowcharts**	**Algorithms / Mimics**	**Algorithms / Mimics**	**Algorithms / Multiple Procedures**	
	Spreadsheet key terms and cell referencing	Basic formulas	Shading, fonts, colours	Put it all into practice	Step by step detailed instructions. Key message, its ok to	Larger more complex instructions			Flowchart symbols and what they mean	Use of Flowol to make flowcharts	Larger flowcharts with Questions	Separate side by side flowcharts	
Cycle 3	**Embedded systems**	**Scratch Intro / recap**	**Using Microbits**	**Advanced Microbits**	**Computer Hardware Computers**	**Computer Hardware Body part vs computer part**	**Revision window**	**Assessment window**	**Computer Hardware Storage**	**Computer Hardware CPU**	**Computer Hardware Binary**	**Computer Hardware Moores Law and new technology**	**Idea Award**
	Systems built for a single purpose	Basic intro to drag and drop programming	Switching on and off of LEDs	Programming inputs and sensors on Microbits	Basic computer input output processor	Which parts we need to know and matched to a body part			Solid Optical Magnetic. (Long term Storage)	Clock Cache Core	Binary table 0,1 Conversion between binary and denary		

DIXONS MIDDLETON ACADEMY

Year 8 Computing - Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1	**Welcome back and induction**	**Office Skills**	**Letter Writing**	**Advertising**	**Market Mapping**	**Social Media**	**Networks**	**Networks Hardware**	**Networks LAN WAN Topologies**	**Revision window**	**Assessment window**	**Computer Science week**	
	Make sure all Dixons accounts and passwords are sorted	Show updates to office 365 and ensure students are all able to get on	Correct formatting and justification for formal letters	What makes a good advertisement. Canva to be used	Tie in to business. Where do products lie in the market	Benefits / Dangers / How is it used for advertising	Standalone vs network. Sharing and communication	Cables WAP Switch Router	Mesh and star Local vs Wide			Computer Science week	
Cycle 2	**Networks internet**	**Networks Wired vs Wireless**	**Databases What are they?**	**Databases Key terms and datatypes**	**Databases Sorting and Filtering**	**Data Rep Binary and ASCII**	**Data Rep Images**	**Revision window**	**Assessment window**	**Data Rep Sound**	**Data Rep Binary Addition**	**Algorithms Decomposition and Abstraction**	**Algorithms Flowchart**
	Internet vs WWW. Satellite and cables	Positive and negative of each	Do not have to be on a computer. Data stored in a structured way	Field Record Table Datatypes	Sorting – Put data in order Filtering / Abstraction Hide irrelevant information	Build on year 7 convert Denary to Binary and ASCIII	Bitmap images Pixels, resolution and metadata			Frequency, Amplitude and digitising Audio	Binary addition rules and the creation of an overflow error	Breaking problems down. Doesn' t need to be computer code	Recap from Year 7 what the shapes are. Then design on paper.
Cycle 3	**Algorithms recap**	**Algorithms Reading Flowcharts**	**Coding with Python**	**Revision Window**	**Assessment window**	**Sequencing code**	**Sequencing code**	**Sequencing code**	**Sequencing code**	**App Design Decomposition**	**App Design Design**	**App Design Coding**	**App Design Coding**
	Key term and flowchart recap	Trace Algorithm questions with data to work out answers	Use trinket.io to introduce copying and pasting and syntax errors			Turing lab introduced students work through the challenges and learn how to edit and manipulate code	Turing Lab coding	Turing Lab coding	Turing Lab coding	Break the problem down into smaller parts	Designing an app using step by step instructions	Block based coding showing app development	Finalizing code

DIXONS MIDDLETON ACADEMY

Year 9 Computing - Long Term Plan

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1	**Skills and network updates**	**Typing / Shortcuts / Digital Best practice**	**Data Rep Binary & ASCII**	**Data Rep Hex**	**Revision Window**	**Assessment Window**	**Data Rep Binary Addition and shifts**	**Data Rep Images**	**Data Rep Compression**	**Data Rep Logic Gates**	**Mini assessment and misconceptions**	**Computer Science week**	
	Changes to Office 365	Using the network as efficiently as possible	Recap of Year 7 and 8 with challenges and independent work	Hexadecimal what is it? Why use it? Where is it used			Recap addition and then work on binary shifts	Colour depth, resolution and metadata	Lossy vs Lossless	Basic gates, what they look like and truth table outcomes		**Computer Science week**	
Cycle 2	**Physical Computing Input output embedded**	**Revision Window**	**Assessment Window**	**Physical Computing Sensors**	**Physical computing**	**Physical Computing CPU**	**Physical Computing Storage Capacity**	**Physical Computing Storage Devices**	**Physical Computing Operating systems**	**Network Security Malware**	**Network Security Phishing**	**Network Security Phishing and social engineering**	**Network Security Botnet and DDOS**
	Embedded systems as a larger device. Embedded systems in the home			What are they? Where do we find them? What can they do	Home Automation	Clock Speed Cache Core	What is capacity File sizes Units of measure Bit up to Petabyte	Solid Optical Magnetic	What is software What is an OS	5 basic types and how the differ	What is it and how to make one	Ease of social engineering and obtaining information online.	What are they. Why are they dangerous? Internet of things
Cycle 3	**Network Security Reasons to hack**	**Revision Window**	**Assessment Window**	**Network Security Prevention and Security**	**Python Input Output Variables**	**Python Selection**	**Python iteration**	**Python PRIMM**	**Python PRIMM**	**Python PRIMM**	**AI What is AI**	**AI Design work using AI**	**AI How Jobs are changing**
	Malicious / black hat / Fun / Theft White hat			Education, Rules, Firewalls	Data Containers	Decisions in code. If Elif Else	Looping code Use Frozen for quick look and angles task. Then on to coding tasks	Use the PRIMM documents to all self-Paced Python	Use the PRIMM documents to all self-paced Python	Use the PRIMM documents to all self Paced Python	What is it – Not a robot just software that can learn and predict	Show Canva and its predicable templates	Reskilling our workforce, what jobs will be obsolete

DAT Year 10 Computer Science - Long Term Plan

OCR J277

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1	1.2 Memory and storage	1.2 Memory and storage	1.2 Memory and storage	1.2 Memory and storage	1.2 Memory and storage	1.2 Memory and storage	Recap, Revision, assessment	Feedback and misconceptions	1.1 System Architecture	1.1 System Architecture	Recap, Revision, assessment	Feedback and misconceptions	
Cycle 2	1.3 Networks	1.3 Networks	1.3 Networks	1.3 Networks	Recap, Revision, assessment	1.4 Network Security	1.4 Network Security	1.4 Network Security	Feedback and misconceptions	1.5 Software	1.5 Software	Recap, Revision, assessment	
Cycle 3	1.6 Issues	1.6 Issues	Exam technique for issues	Recap, Revision, assessment	Mock Revision	Mock Revision	Mock Revision	Mock Revision	Assessment and Feedback	2.1 Algorithms	2.1 Algorithms	2.2 Programming Fundamentals	2.2 Programming Fundamentals

DIXONS MIDDLETON ACADEMY

DAT Year 11 Computer Science - Long Term Plan

OCR J277

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Cycle 1	2.1 Recap	2.2 Recap	2.3 Defensive Design	2.3 Testing 2.4 Boolean Logic	2.5 Programming and IDE	Paper 2 Theory Recap	Mock Revision and exam technique	Mock Revision and Mock Exams	Feedback	2.2 Programming Theory & Practice	2.2 Programming Theory & Practice	2.2 Programming Theory & Practice	
Cycle 2	Paper 1 & 2 Revision	Paper 1 & 2 Revision	Paper 1 & 2 Revision	Paper 1 & 2 Revision	Mock Exams	Feedback and misconceptions	Examiners report analysis	Student becomes examiner	Paper 1 Theory	Paper 2 Theory	Paper 1 and 2 theory	Paper 1 and 2 theory	Quick Marks and how to get them
Cycle 3	Student Choice Flipped Learning	Hardware Practical Lessons	Exam Theory	Bespoke revision	GCSE Exam	GCSE Exam							