

MANCHESTER COMMUNICATION PRIMARY ACADEMY

INTENT AND SEQUENCING

Computing Subject Overview

Curriculum



NURSERY						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
OBJECTIVE	I can use paint to create a picture (Paint project)	I can support my number recognition and practise writing numbers in figures (Numbers and Counting)	I can use drag and drop to complete a jigsaw (4 piece) and E-Safety: Stranger Danger	I can use sound buttons to record audio files using my voice for stories I can make music (Music and Sounds)	I can use drag and drop to complete a 6 piece jigsaw (Games)	I can use paint more accurately to create a picture (Paint project)
VOCAB	click , paint hold	Follow mouse	drag , drop, ask, safe	Sound, record, music	Screen, tablet, laptop	careful

RECEPTION						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
NEW TOPICS	GETTING TO KNOW YOU	ADVENTURE IS OUT THERE!	WE'RE IN THE LAND MAKE BELIEVE	FANTASTIC BEASTS	BUCKLE UP, WE ARE GOING ON A JOURNEY	TRANSITION
UNIT	Mini mash	Mini mash/purple mash	Mini mash/purple mash	Mini mash/purple mash	Mini mash/purple mash	purple mash
PROVISION ACTIVITIES	ipad/laptops Explore Mini Mash	ipad/laptops Talking Stories (Purple Mash) https://www.purplemash.com/#app/games/ts	laptops Jigsaws Measure	laptops/Bee Bots Pairs Shape	laptops Money Time	laptops
TEACH SPECIFIC SKILLS	To drag & drop		To programme		To insert pictures and to type	
WEEK 1 <small>Link: https://www.purplemash.com/#app/games/mc1_minimash</small>	Internet Safety Stranger Danger Turn Off and Tell	Maths Focus (recognising numbers, counting, measure) Programme: Maths City 1 (Mini Mash and Purple Mash) The Farm Curriculum links: CLL - LA/U/S PD - MH L - R M - N/SSM UW - PC/ W/T EAD - EMM/BI	Maths Focus (recognising numbers, counting, measure) Programme: Maths City 1 (Mini Mash and Purple Mash) Toy Shop Curriculum links: CLL - LA/U/S PD - MH L - R M - N/SSM UW - PC/ W/T EAD - EMM/BI	Maths Focus (recognising numbers, counting, position & direction) Programme: Maths City 1 (Mini Mash and Purple Mash) Cars Curriculum links: CLL - LA/U/S PD - MH L - R M - N/SSM UW - PC/ W/T EAD - EMM/BI	Maths Focus (counting to 20) Programme: A -fish-metic (Purple Mash) Curriculum links: CLL - LA/U/S PD - MH L - R M - N UW - W/T	
WEEK 2	Mini Mash - Explore Simple City			Maths Focus (position & direction, number) L.O: I can interact with a beebot and learn what the different controls do. Resources: Beebots Curriculum links: CLL - LA/U/SPD - MH M - N/SSM UW - T		
WEEK 3	Mini Mash - Explore Games					

RECEPTION

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<p>WEEK 4 Link: https://www.purplemash.com/#apptools/2cas2</p> <p>https://www.purplemash.com/#tab/pm-home/tools/2email</p> <p>https://www.purplemash.com/app/links/2respondcreator#/template</p>	<p>Mini Mash - Explore Number and counting</p>	<p>English Focus LO: To create a simple story. Programme: My Simple Story (can be done on Mini Mash & Purple Mash depending on ability) The Gingerbread Man Curriculum links: CLL - LA/U/S PD - MH L - R/W UW - W/T EAD - EMM/BI</p>	<p>English Focus LO: To create a story. Programme: My Story (can be done on Mini Mash & Purple Mash depending on ability) The old Lady Who Swallowed a Fly. PD - MH L - R/W UW - W/T EAD - EMM/BI</p>	<p>English Focus LO: To ask and answer questions. Programme: 2Email/2 Respond (Purple Mash) Write emails to the characters in The Gruffalo. Curriculum links: PSED: MR/SCSA CLL - LA/U/S PD - MH L - R/W UW - PC/ W/T EAD - EMM/BI</p>	<p>English Focus LO: To create an adventure story. Programme: My Adventure Story (can be done on Mini Mash & Purple Mash depending on ability) Where the Wild Things Are Curriculum links: CLL - LA/U/S PD - MH L - R/W UW - W/T EAD - EMM/BI</p>	
<p>WEEK 5</p>	<p>Mini Mash - Explore Reading & Writing</p>	<p>RE/Art focus LO: To paint a Christmas Tree. Programme: Paint Project: Christmas trees Curriculum links: CLL - LA/U/S PD - MH UW - W/T EAD - EMM/BI Link: https://www.purplemash.com/#app/pap/celebrations/trees</p>	<p>Science/Art focus LO: To create a spring picture. Programme: Paint Project: Spring Curriculum links: CLL - LA/U/S PD - MH UW - W/T EAD - EMM/BI Link: https://www.purplemash.com/#app/pap/nature/spring</p>	<p>RE/Art focus LO: To paint a mehndi pattern. Programme: Paint Project Mehndi Curriculum links: CLL - LA/U/S PD - MH UW - W/T EAD - EMM/BI Link: https://www.purplemash.com/#app/pap/celebrations/mehndi</p>		
<p>VOCAB</p>	<p>Keyboard, click, move</p>	<p>Drop, drag, mouse, hold</p>	<p>Screen, exit</p>	<p>Beebot, arrow, stop, go</p>	<p>Add, picture, key</p>	<p>Name, type</p>

YEAR 1						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Typing Information technology	Typing Information technology	E- Safety Digital literacy	Bee Bots Computer Science	Coding Computer Science	Blogging Digital literacy
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I can identify the home row, top row and bottom row keys. I can identify the keys to spell my name. 	<ul style="list-style-type: none"> I can use the correct fingers to find letters on the top row. 	<ul style="list-style-type: none"> I know what to do when something I'm not expecting comes on the screen. 	<ul style="list-style-type: none"> To understand that a computer follows precise commands and will respond to those commands consistently. 	<ul style="list-style-type: none"> I can use code to move a character. I can use code to create a condition for an action to take place. 	<ul style="list-style-type: none"> I know what a blog is and its purpose. I can explore a variety of blogs. I can decide what I would like to blog about. (Blogs related to previous learning in Year 1)
	<ul style="list-style-type: none"> I can use the correct fingers to find letters on the home row. I can drag and drop. 	<ul style="list-style-type: none"> I can use my left hand to find the correct letters. 	<ul style="list-style-type: none"> I know what to do if I end up on the correct page. 	<ul style="list-style-type: none"> I can make a bee bot go forwards and backwards. 	<ul style="list-style-type: none"> I can solve problems in a code. 	<ul style="list-style-type: none"> I can create my own blog by researching, inserting pictures, downloading files and typing.
	<ul style="list-style-type: none"> I can use the correct fingers to find letters on the bottom row. 	<ul style="list-style-type: none"> I can use my right left hand to find the correct letters. 	<ul style="list-style-type: none"> I know what to do if I receive a message on my screen. 	<ul style="list-style-type: none"> To be able to plan and predict the behaviour of simple programs. 	<ul style="list-style-type: none"> I can create my own castle scene with 2 moving characters. 	<ul style="list-style-type: none"> I can create my own blog by researching, inserting pictures, downloading files and typing.
VOCAB	Log on, keyboard, double click, screen, shutdown, start, mouse	Menu, left click, right click,	Online, rules, pop up	Up, down, direction, program, coding, left, right	Instruction, rule, design	Blog, community, content, internet

YEAR 2						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Typing Information technology	Word Processing Information technology	E- Safety Digital literacy	Paint Information technology	Bee bots Computer Science	Coding Computer Science
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I can log on independently. I can review Yr1 typing skills from Autumn 1 and 2. 	<ul style="list-style-type: none"> I can type a whole sentence with a capital letter, spaces and punctuation on Word. 	<ul style="list-style-type: none"> I understand when to share and show what I am doing on a computer. 	<ul style="list-style-type: none"> I can create an image using different drawing tools. 	<ul style="list-style-type: none"> I can plan a journey for a bee bot using the correct arrows and then test it. 	<ul style="list-style-type: none"> I can program a 1 step algorithm.
	<ul style="list-style-type: none"> I can type CVC words. I can highlight a piece of text. 	<ul style="list-style-type: none"> I can edit: the size of the font, colour, type and page position of the text. 	<ul style="list-style-type: none"> I understand what personal info is and that shouldn't give it away 	<ul style="list-style-type: none"> I can insert shapes to my image changing their size and rotation. 	<ul style="list-style-type: none"> I can create my own mat design and plan a journey 	<ul style="list-style-type: none"> I can program a 'when clicked or specific key touch instruction.
	<ul style="list-style-type: none"> I can use the shift and space keys. I can type capital letters and numbers. 	<ul style="list-style-type: none"> I can type a whole text applying my typing skills. 	<ul style="list-style-type: none"> I understand gaming dangers 	<ul style="list-style-type: none"> I can apply my knowledge of paint to create a Lowry inspired picture. 	<ul style="list-style-type: none"> I can plan a journey to achieve a goal. 	<ul style="list-style-type: none"> I can debug an algorithm. I can create my own algorithm.
VOCAB	Highlight, shift, space bar, caps lock	Backspace, delete, font, enter, return	Share, personal information, trustworthy	Tool, erase, select, rotate, enlarge, reduce	Debug	Algorithm, sprite

YEAR 3						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Word Processing Information technology	Coding Computer Science	E- Safety Digital literacy	Using a search engine and mind maps Digital literacy and information technology	Mind maps Information technology	Coding Computer Science
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I can log on independently. I can type with both hands. I can underline a title and use enter to start a new line. 	<ul style="list-style-type: none"> To be able to program an on click algorithm. 	<ul style="list-style-type: none"> To understand stranger danger and meeting people online. 	<ul style="list-style-type: none"> I can carry out research for my mind map, using a search engine effectively. 	<ul style="list-style-type: none"> I can create the nodes and change their colour and text. 	<ul style="list-style-type: none"> To be able to select and change the background.
	<ul style="list-style-type: none"> I can insert bullet points and numbers. I can use spell checker. 	<ul style="list-style-type: none"> To be able to program an if algorithm. 	<ul style="list-style-type: none"> To understand cyber bullying. 	<ul style="list-style-type: none"> I can plan my mind map on paper. 	<ul style="list-style-type: none"> I can add links, pictures, sounds and notes on my nodes. 	<ul style="list-style-type: none"> To be able to select and change the sprites.
	<ul style="list-style-type: none"> I can cut and paste. I can find and replace. I can use keyboard shortcuts 	<ul style="list-style-type: none"> To be able to program an else algorithm. 	<ul style="list-style-type: none"> To understand confidential information. 	<ul style="list-style-type: none"> I can plan the different strands to my mind map with an understanding of the different nodes I will need to create. 	<ul style="list-style-type: none"> I can create a mind map on natural disasters. 	<ul style="list-style-type: none"> To be able to program sprites to move and navigate around the background.
CC LINKS			Writing Projects: Romans Maths (times tables) – 2 Simple table Toons	Writing Projects: Volcanoes Earthquake leaflet/ newspaper report	Maths – 2 Graph Maths – Time/ Measure	
VOCAB	Underline, insert, cut, paste, copy, ctrl alt	Variables, value, purpose	Public, private, social media, password strength	Search engine, digital resources, node	Hyperlink, video, mp3	Model, diagonal, horizontal, vertical, navigate

YEAR 4

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Algorithms Computer Science	Algorithms Computer Science	E- Safety Digital literacy	Coding Computer Science	Coding Computer science	Word Processing Information Technology
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I can explain the term algorithm and sequence a set of instructions to complete a task I can explain pattern recognition and find common features in a range of objects. I can explain the term abstraction and work out what things are unimportant in certain scenarios. 	<ul style="list-style-type: none"> I can explain the term decomposition and break several problems down into smaller chunks. I can explain what the different flowchart shapes represent. I can understand and follow a flow chart (to recognise a range of playground games). 	<ul style="list-style-type: none"> I have an awareness of relevant e-safety issues, such as cyber bullying. I understand how grooming and cyberbullying is now very present in online gaming, and know what to look out for. I know how to deal with unpleasant forms of electronic communication. 	<ul style="list-style-type: none"> To be able to program a collision and reward based game. To be able to program a score based game. To be able to add variables and challenge to a game 	<ul style="list-style-type: none"> I can plan the aim of my game and create the background and characters. I can determine the algorithm to ensure my game works. I can debug my game based upon feedback. 	<ul style="list-style-type: none"> I can insert and format text boxes. I can copy a screenshot into another document and use the snipping tool. I can insert a page border and word art into a word document.
VOCAB	Sequence, pattern, common feature, abstraction, repetition	Decomposition, flow chart, logical reasoning	Online behaviour, share, consequence, appropriate, inappropriate	Structure, transition, series	Selection, characteristic, simulation	Insert, text, box, snip, screenshot, boarder, format

YEAR 5						
	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Word Processing Information Technology	Excel Information Technology	E- Safety and Powerpoint Digital literacy and Information Technology	Python Computer Science	Python Computer Science	Digital Sound Information Technology
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I am aware of plagiarism, copyright and data protection in relation to my work. I can use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 	<ul style="list-style-type: none"> I can enter data and formulas into a spreadsheet. 	<ul style="list-style-type: none"> I have an awareness of relevant e-safety issues, such as cyber bullying. I can make a multi page presentation using attractive fonts and images. 	<ul style="list-style-type: none"> I can understand the purpose of code. I can write a simple print command. 	<ul style="list-style-type: none"> I can use python to draw simple lines using the turtle tool. 	<ul style="list-style-type: none"> I can use software to create my own sounds by recording, editing and playing.
	<ul style="list-style-type: none"> I can build a basic report using Microsoft Word with a cover page, header and footer. 	<ul style="list-style-type: none"> I can order and present data based on calculations. 	<ul style="list-style-type: none"> I understand the impact of what I say online and the future implications of it. I can use transitions and animations to make a presentation look effective and professional. 	<ul style="list-style-type: none"> I can explain the difference of how to use numbers and text in programming. I can use python to write further commands. 	<ul style="list-style-type: none"> I can use python to draw simple lines using the turtle tool. 	<ul style="list-style-type: none"> I can combine audio effects to create an original radio jingle.
	<ul style="list-style-type: none"> I can insert title headings and create a contents page that automatically updates. 	<ul style="list-style-type: none"> I can add, edit and calculate data. 	<ul style="list-style-type: none"> I know how to protect my important information online. I can present the presentation I created. 	<ul style="list-style-type: none"> I can identify bugs and understand how to solve them. 	<ul style="list-style-type: none"> I can use python to draw shapes. 	<ul style="list-style-type: none"> I can research and plan digital content for a radio podcast. I can use software to create and present digital content for a radio podcast.
VOCAB	Plagiarism, copyright, cover page, header, footer, contents, quote	Data, cell, formula, calculation	Identity, implications, fake news, misinformation, disinformation	Command, prior, subsequent	Efficiency, complex, improve	Download, quality, resolution, output

YEAR 6

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
UNIT	Networking Computer science	Networking Computer science	E- Safety Digital literacy	Excel Information Technology	Python Computer Science	Python Computer Science
LEARNING OBJECTIVES	<ul style="list-style-type: none"> I understand that computers and devices can connect to computer networks. 	<ul style="list-style-type: none"> I know the difference between the WWW and the internet. I can identify and explain the role of different network servers. 	<ul style="list-style-type: none"> I understand the importance of thinking before I post. 	<ul style="list-style-type: none"> I can add, edit and calculate data. I can use a spreadsheet to solve problems. 	<ul style="list-style-type: none"> I can explain the difference between the script window and the interactive window in Python. I can write a simple programme that outputs text into the interactive window 	<ul style="list-style-type: none"> I can use selection (if statements) to plan simple quiz program
	<ul style="list-style-type: none"> I can identify different network hardware and software. I understand how computer systems communicate with one another. 	<ul style="list-style-type: none"> I can explain how an email travels along the internet. 	<ul style="list-style-type: none"> I understand the reason for age limits 	<ul style="list-style-type: none"> I can plan and calculate a spending budget. 	<ul style="list-style-type: none"> I can write a simple programme that uses a variable allowing a user to interact with the interactive window. 	<ul style="list-style-type: none"> I can use two-way selection in my programming (if, then, else) To build a simple question and answer quiz.
	<ul style="list-style-type: none"> I can describe LAN and WAN and explain the difference between them. 	<ul style="list-style-type: none"> I understand the different network securities. 	<ul style="list-style-type: none"> I understand the purpose of network security and how this protects me. 	<ul style="list-style-type: none"> I can design a spreadsheet for a specific purpose. 	<ul style="list-style-type: none"> I can create a program that takes input from the user, process it and output the result. 	<ul style="list-style-type: none"> I can use simple calculation in variables to create a score system within my program. I can use relational operators such as <, >, >=, <=, =, <> to add a responsive feedback system to my quiz to tell the user how well they have done.
VOCAB	Network, hardware, software, IP address, permissions	Servers, recipient, reply, send, CC, BCC, meta data	Network security, age restrictions, consent, law	Budget, design, purpose, function	Script, interactive, interface, functionality, user, simultaneous,	Relational operators, conditional, cumulative