Computing Curriculum

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	Geography Question Where do I live? **Grouping 1.2** To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash. (Technology out of school 1.9 → if we change to Toys)	History Question How has childhood changed over time? **Pictograms 1.3** To understand that data can be represented in picture format. To contribute to a class pictogram. To use a pictogram to record the results of an experiment.	History Question What changed because of the Great Fire of London? **Maze explorers 1.5** To understand the functionality of the direction keys. To understand how to create and debug a set of instructions. To use the additional direction keys as part of an algorithm. To understand how to change and extend the algorithm list. To create a longer algorithm for an activity.	Geography Question How is a farm different to Hyde? **Spreadsheets (animals in a farm) 1.8** To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash. To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count.	History Question How has transport changed over time? **Animated storybooks 1.6** To introduce e-books and the 2Create a Story tool. To add animation to a story. To add sound to a story, including voice recording and music the children have composed. To work on a more complex story, including adding backgrounds and copying and pasting pages. To share e-books on a class display board.	Geography Question How does Antarctica compare to the UK? Coding 1. 7 To understand what instructions are and predict what might happen when they are followed. To use code to make a computer program. To understand what object and actions are. To understand what an event is. To use an event to control an object. To begin to understand how code executes when a program is run. To understand what backgrounds and objects are. To plan and make a computer program.

2	History Question How and why has Market Street changed? **Coding 2.1** To understand what an algorithm is. To create a computer program using an algorithm. To create a program using a given design. To understand the collision detection event. To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To understand the function of buttons in a program. To understand and debug simple programs.	Geography Question What is it like to live in Australia? **Creating pictures 2.6** (use objectives but change to link with Australia) To learn the functions of the 2Paint a Picture tool. To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). To recreate Pointillist art and look at the work of pointillist artists such as Seurat. To learn about the work of Piet Mondrian and recreate the style using the lines template. To learn about the work of William Morris and recreate the style using the patterns template. To explore surrealism and eCollage.	History Question Why are Rosa Parks and Emmaline Pankhurst remembered? **Making Music 2.7** To make music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. To edit and refine composed music. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record and upload environmental sounds into Purple Mash. To use these sounds to create tunes in 2Sequence.	Geography Question How does Bangladesh compare to the UK? **Effective Searching 2.5** To understand the terminology associated with searching. To gain a better understanding of searching on the Internet. To create a leaflet to help someone search for information on the Internet.	History Question Why is Lowry still remembered today? **Questioning 2.4** To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use 2Question to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information.	Geography Question Would you like to live beside the seaside? **Presenting Ideas 2.8** To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class.

Purple Mash Computing Scheme of Work – List of all units

Predominant Area of Computing*		
Computer Science	Information Technology	Digital Literacy

*Most units will include aspects of all strands.

3	History Question What was the Ancient Britons' greatest invention? **Touch typing 3.4** To introduce typing terminology. To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practise typing with the left and right hand.	Geography Question What makes a river? **Branching Databases 3.6** To sort objects using just 'yes' or 'no' questions. To complete a branching database using 2Question. To create a branching database of the children's choice.	History Question Why do we know more about the Egyptians than the Britons? LINK TO SCIENCE – collect data **Spreadsheets 3.3** To use the symbols more than, less than and equal to, to compare values. To use 2Calculate to collect data and produce a variety of graphs. To use the advanced mode of 2Calculate to learn about cell references.	Geography Question What makes a mountain? **Graphing 3.8** (mountain range) To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form. **Presenting 3.9** (Put graph into Google Slide) To understand the uses of PowerPoint. To create a page in a presentation. To add media to a presentation. To add animations to a presentation. To add timings to a presentation. To use the skills learnt to design and create an engaging presentation.	History Question What mattered to Ancient Greek people? Greek mathematician link **Coding 3.1** To understand what a flowchart is and how flowcharts are used in computer programming. To understand that there are different types of timers and select the right type for purpose. To understand how to use the repeat command. To understand the importance of nesting. To design and create an interactive scene.	Geography Question Why would you visit Hyde? (email a question to someone about Hyde e.g. NH, C of G, Parent Gov etc) **Email 3.5** To think about different methods of communication. To open and respond to an email using an address book. To learn how to use email safely. To add an attachment to an email. To explore a simulated email scenario.

4	History Question How did life in Britain change when the Romans ruled? **Logo 4.5** (mosaics) To learn the structure of the coding language of Logo. To input simple instructions in Logo. Using 2Logo to create letter shapes. To use the Repeat function in Logo to create shapes. To use and build procedures in Logo.	Geography Question What is the impact of our angry Earth? **Animation 4.6** (animation of volcano etc) To discuss what makes a good, animated film or cartoon. To learn how animations are created by hand. To find out how animation can be created in a similar way using the computer. To learn about onion skinning in animation. To add backgrounds and sounds to animations. To be introduced to 'stop motion' animation. To share animation on the class display board and by blogging.	History Question How did the Romans control Britain? Why do we remember Boudicca? **Coding 4.1** To begin to understand selection in computer programming. To understand how an IF statement works. To understand how to use co-ordinates in computer programming. To understand the 'repeat until' command. To understand how an IF/ELSE statement works. To understand what a variable is in programming. To use a number variable. To create a playable game.	Geography Question Why would you visit Spain? **Writing for different audiences 4. 4** To explore how font size and style can affect the impact of a text. To use a simulated scenario to produce a news report. To use a simulated scenario to write for a community campaign.	History Question What was the British Empire like? **Making music 4.9** (link to sound in science) To identify and discuss the main elements of music. To understand and experiment with rhythm and tempo. To create a melodic phrase. To electronically compose a piece of music.	Geography Question How can I be a good citizen of the world? **Hardware investigators 4.8** To understand the different parts that make up a computer. To recall the different parts that make up a computer.

5	History Question How and why did the Anglo-Saxons invade and settle in Britain? **Word Processing 5.8** To know what a word processing tool is for. To add and edit images to a word document. To know how to use word wrap with images and text. To change the look of text within a document. To add features to a document to enhance its look and usability. To use the sharing capabilities in Google Docs. To use tables within to present information. To introduce children to templates.	Geography Question Why are biomes important to the world? (Arctic/Antarctica /Polar regions) **Coding 5.1** To begin to simplify code. To create a playable game. To understand what a simulation is. To program a simulation using 2Code. To know what decomposition and abstraction are in computer science. To a take a real-life situation, decompose it and think about the level of abstraction. To understand how to use friction in code. To begin to understand what a function is and how functions work in code. To understand what the different variables types are and how they are used differently. To understand how to create a string. To understand what concatenation is and how it works.	History Question How did the Anglo-Saxon rule change Britain? **External devices 5.9** * Need Purple chip app downloading To know what a word processing tool is for. To add and edit images to a word document. To know how to use word wrap with images and text. To change the look of text within a document. To add features to a document to enhance its look and usability. To use tables within MS Word to present information. To introduce children to templates. To consider page layout including heading and columns.	Geography Question Why would you visit London? **Game Creator 5.5** (link to London) To plan a game. To design and create the game environment. To design and create the game quest. To finish and share the game. To self and peer evaluate.	History Question How did the Industrial Revolution affect Tameside? **Concept maps 5.7** To understand the need for visual representation when generating and discussing complex ideas. To understand the uses of a 'concept map'. To understand and use the correct vocabulary when creating a concept map. To create a concept map. To understand how a concept map can be used to retell stories and information. To create a collaborative concept map and present this to an audience.	Geography Question Why are biomes important to the world? (rainforests) **Databases 5.4** To learn how to search for information in a database. To contribute to a class database. To create a database around a chosen topic.

6	History Question What mattered to the Vikings? **Coding 6.1** Move on to scratch – transerable skills To design a playable game with a timer and a score. To plan and use selection and variables. To understand how the launch command works. To use functions and understand why they are useful. To understand how functions are created and called. To use flowcharts to create and debug code. To create a simulation of a room in which devices can be controlled. To understand how user input can be used in a program. To understand how 2Code can be used to make a text-adventure game.	Geography Question Why would you visit Mexico? **Text Adventures 6.5** To find out what a text adventure is. To use 2Connect to plan a story adventure. To make a story-based adventure using 2Create a Story. To read and understand given code for a text adventure game. To debug and improve a text adventure game.	History Question Why was Baghdad such an important city in 900CE? **Spreadsheets 6.3** (Excel) To use a spreadsheet to investigate the probability of the results of throwing many dice. To use a spreadsheet to calculate the discount and final prices in a sale. To use a spreadsheet to plan how to spend pocket money and the effect of saving money. To use a spreadsheet to plan a school charity day to maximise the money donated to charity.	Geography Question Where does our food come from? (trade) Fairtrade Fortnight **Networks 6.6** To learn about what the Internet consists of. To find out what a LAN and a WAN are. To find out how the Internet is accessed in school. To research and find out about the age of the Internet. To think about what the future might hold.	**Online safety 6.2** To identify benefits and risks of mobile devices broadcasting the location of the user/device. To identify secure sites by looking for privacy seals of approval. To identify the benefits and risks of giving personal information. To review the meaning of a digital footprint. To have a clear idea of appropriate online behaviour. To begin to understand how information online can persist. • To understand the importance of balancing game and screen time with other parts of their lives. To identify the positive and negative influences of technology on health and the environment.	**Blogging 6.4** To identify the purpose of writing a blog. • To identify the features of a successful blog. • To plan the theme and content for a blog. • To understand how to write a blog and a blog post. • To consider the effect upon the audience of changing the visual properties of the blog. • To understand how to contribute to an existing blog. • To understand how and why blog posts are approved by the teacher. • To understand the importance of commenting on blogs.

One e-safety lesson at the beginning of each half term and then beginning each lesson with an e-safety top –tip or PIT STOP – STOP AND THINK (before we use the devices) *digital literacy throughout!