Easton CE Academy Computing Overview

Year 1	Online Safety and Exploring Purple Mash	Grouping and Sorting Pictograms Lego Builders	Maze Explorers Animated Story Books Coding
	To log in safely and understand why that is important. • To create an avatar and to understand what this is and how it is used. • To be able to create a picture and add their own name to it. • To start to understand the idea of 'ownership' of creative work. • To save work to the My Work area and understand that this is private space • To learn how to find saved work in the Online Work area. • To learn about what the teacher has access to in Purple Mash • To learn how to see messages left by the teacher on their work. • To learn how to search Purple Mash to find resources. To explore the Tools area of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. • To explore the Games area on Purple Mash. • To understand the importance of logging out when they have finished.	•To sort items using a range of criteria. • To sort items on the computer using the 'Grouping' activities in Purple Mash. • 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 • To emphasise the importance of following instructions. • To follow and create simple instructions on the computer. • To consider how the order of instructions affects the result.	• To understand the functionality of the basic direction keys in Challenges 1 and 2. • To be able to use the direction keys to complete the challenges successfully. • To understand the functionality of the basic direction keys in Challenges 3 and 4 • To understand how to create and debug a set of instructions (algorithm). • To use the additional direction keys as part of their algorithm. • To understand how to change and extend the algorithm list. • To provide an opportunity for the children to set challenges for each other. • To create a longer algorithm for an activity. • To provide an opportunity for the teacher to add these challenges to a display board for the class to try. • To understand the differences between traditional books and ebooks. • To explore the tools of 2Create a Story's My Simple Story level. • To save the page they have created. • To add animation to a picture. • To play the pages created so far. • To save the additional changes and overwrite the file. To add a sound effect to a picture. • To add a voice recording to the picture. •To add created music to the picture. • To add a background to the story

					• To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story. To use the copy and paste feature to create additional pages. • To continue and complete an animated story. • To create a class display board of the story books created by the class • To understand what instructions are. • To predict what will happen when instructions are followed. • To understand that computer programs work by following instructions called code • To use code to make a computer program. • To understand what objects and actions are. • To understand what an event is. • To use an event to control an object. • To understand what an event is. • To begin to understand how code executes when a program is run. • To understand what backgrounds and objects are. • To understand how to use the scale property. • To plan a computer program. • To make a computer program.	
Year 2	**Online Safety & Exploring Purple Mash**	**Pictograms & Lego Builders**	**Maze Explorers**	**Animated Story Books**	**Coding**	**Spreadsheets**
	To log in safely and understand why that is important. • To create an avatar and to understand what this is and how it is used. • To be able to	• 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	• To understand the functionality of the basic direction keys in Challenges 1 and 2. • To be able to use the direction keys to complete the challenges successfully.	To understand the differences between traditional books and ebooks. • To explore the tools of 2Create a Story's My Simple Story level. • To save the page they have created.	• To understand what instructions are. • To predict what will happen when instructions are followed. • To understand that computer programs work	• To understand what a spreadsheet looks like. • To be able to navigate around a spread sheet and enter data.

create a picture and add their own name to it. • To start to understand the idea of 'ownership' of creative work. • To save work to the My Work area and understand that this is private space. - To learn how to find saved work in the Online Work area. • To learn about what the teacher has access to in Purple Mash. • To learn how to see messages left by the teacher on their work. • To learn how to search Purple Mash to find resources - To become familiar with the types of resources available in the Topics section. • To become more familiar with the icons used in the resources in the Topics section. • To start to add	• To emphasise the importance of following instructions. • To follow and create simple instructions on the computer. • To consider how the order of instructions affects the result.	• To understand the functionality of the basic direction keys in Challenges 3 and 4 • To understand how to create and debug a set of instructions (algorithm). • To use the additional direction keys as part of their algorithm. • To understand how to change and extend the algorithm list. • To provide an opportunity for the children to set challenges for each other. • To create a longer algorithm for an activity. • To provide an opportunity for the teacher to add these challenges to a display board for the class to try.	• To add animation to a picture. • To play the pages created so far. • To save the additional changes and overwrite the file. • To add a sound effect to a picture. • To add a voice recording to the picture. •To add created music to the picture. To add a background to the story • To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story. To use the copy and paste feature to create additional pages. • To continue and complete an animated story. • To create a class display board of the story books created by the class	by following instructions called code • To use code to make a computer program. To understand what objects and actions are. • To understand what an event is. To use an event to control an object. • To understand what an event is. • To begin to understand how code executes when a program is run. • To understand what backgrounds and objects are. • To understand how to use the scale property. • To plan a computer program. • To make a computer program.	• To learn new vocabulary related to spreadsheets • To add clipart images to a spreadsheet. • To use the 'move cell' and 'lock' tools. • To use the 'speak' and 'count' tools in 2Calculate to count items.

	pictures and text to work. - To explore the Tools area of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. • To explore the Games area on Purple Mash. • To understand the importance of logging out when they have finished Grouping (2 lessons) To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.					
Year 3	**Coding**	**Touch typing**	**Online safety**	**Simulations**	**Presenting**	**Branching databases & Graphing**
	• To review previous coding knowledge. • • To understand what a flowchart is and how flowcharts	• To introduce typing terminology. • To understand the correct way to sit at the keyboard. • To learn how to use the home, top	• To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.	• To find out what a simulation is and understand the purpose of simulations. To explore a simulation, making choices and	• • To create a page in a presentation. • To add media to a presentation • To add animations into a presentation	• To sort objects using just YES/NO questions. • • To complete a branching

are used in computer programming. • To understand that there are different types of timers. • To be able to select the right type of timer for a purpose. • To understand how to use the repeat command. • To use coding knowledge to create a range of programs. • To understand the importance of nesting. • To design and create an interactive scene.	and bottom row keys. • To practice and improve typing for home, bottom, and top rows. • To practice the keys typed with the left hand. • To practice the keys typed with the right hand.	• To understand how the Internet can be used to help us to communicate effectively. • To understand how a blog can be used to help us communicate with a wider audience. • To consider if what can be read on websites is always true. • To look at a 'spoof' website. • To create a 'spoof' webpage. • To think about why these sites might exist and how to check that the information is accurate. • To learn about the meaning of age restrictions symbols on digital media and devices. • To discuss why PEGI restrictions exist. • To know where to turn for help if they see inappropriate content or have inappropriate	discussing their effects. • To work through and evaluate a more complex simulation.	• To add timings into a presentation. • To use the skills learnt in previous weeks to design and present an effective presentation.	database using 2Question. • To create a branching database of the children's choice. • To enter data into a graph and answer questions. • To solve an investigation and present the results in graphic form. • **Unit 3.3 Spreadsheets (3 lessons)** • To add and edit data in a table layout. • To find out how spreadsheet programs can automatically create graphs from data. • • To introduce the 'more than', 'less than' and 'equals' tools. • To introduce the 'spin' tool and

			contact from others. • To think about the different methods of communication. • To open and respond to an email. • To write an email to someone from an address book. • To learn how to use email safely. • To learn how to use email safely. • To add an attachment to an email. • To explore a simulated email scenario.			show how it can be used to count through times tables. • To introduce the Advanced mode of 2Calculate. • To learn about describing cells using their addresses.
Year 4	**Coding**	**Spreadsheets & Touch-typing**	**Online safety & Simulations**	**Email**	**Graphing & Presentation**	**Databases**
	To review previous coding knowledge To understand what a flowchart is and how flowcharts are used in computer programming. To understand that there are different types of timers. To be able to select the right type of	To add and edit data in a table layout. • To find out how spreadsheet programs can automatically create graphs from data. To introduce the 'more than', 'less than' and 'equals' tools. To introduce the 'spin' tool and show how it can be used to count through times tables.	To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. • To understand how the Internet can be used to help us to communicate effectively. • To understand how a blog can be used to help us	To think about the different methods of communication. To open and respond to an email. • To write an email to someone from an address book. To learn how to use email safely.	To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form. To create a page in a presentation. To add media to a presentation To use the skills learnt in previous weeks to design	To sort objects using just YES/NO questions. To complete a branching database using 2Question. To create a branching database of the children's choice.

	timer for a purpose. To understand how to use the repeat command. o use coding knowledge to create a range of programs. • To understand the importance of nesting.	To introduce the Advanced mode of 2Calculate. • To learn about describing cells using their addresses. 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 practice and improve typing for home, bottom, and top rows. To practice the keys typed with the right hand. To practice the keys typed with the right hand.	communicate with a wider audience. o consider if what can be read on websites is always true. • To look at a 'spoof' website. • To create a 'spoof' webpage. • To think about why these sites might exist and how to check that the information is accurate To learn about the meaning of age restrictions symbols on digital media and devices. • To discuss why PEGI restrictions exist. • To know where to turn for help if they see inappropriate content or have inappropriate contact from others. To find out what a simulation is and understand the purpose of simulations. To explore a simulation, making choices and discussing their effects.		and present an effective presentation.	
Year 5	**Coding**	**Spreadsheets**	**Database**	**Concept Map**	**3D-Modelling**	**Game creator**
	To review existing coding knowledge.	To use formulae within a spreadsheet to	To learn how to search for information in a database.	To understand the need for visual representation	To be introduced to the 2Design and Make tool.	To Introduce the 2DIY 3D tool.

To begin to be able 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 take a real-life situation, decompose it and think about the level of abstraction. To use decomposition to make a plan of a real-life situation. 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 variable types are and how they are	convert measurements of length and distance. To use the count tool to answer hypotheses about common letters in use. To use a spreadsheet to model a real-life problem. To use formulae to calculate area and perimeter of shapes To create formulae that use text variables. To use a spreadsheet to help plan a school cake sale.	To contribute to a class database. To create a database around a chosen topic.	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	To explore the effect of moving points when designing. To design a 3D model to fit certain criteria. To refine and print a model.	To begin planning a game. To design the game environment To design the game quest to make it a playable game. To finish and share the game. To self- and peer-evaluate.

	used differently. To understand how to create a string To begin to explore text variables when coding. To understand what concatenation is and how it works.					
Year 6	**Coding**	**Spreadsheets & Online Safety**	**Text Adventures**	**Networks**	**Understanding Binary**	**Blogging & Quizzing**
	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 test and debug a program. To create a simulation of a room in which devices can be controlled.	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. Create a formula to help work out the prices of items in the 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. To identify benefits and risks of mobile devices broadcasting the location of the	To find out what a text-based adventure game is and to explore an example made in 2Create a Story. To use 2Connect to plan a 'Choose your own Adventure' type story. To use 2Connect plans for a story adventure to make the adventure using 2Create a Story To introduce an alternative model for a text adventure which has a less sequential narrative. To use written plans to code a map-based adventure in 2Code.	To discover what the children know about the Internet. To find out what a LAN and WAN are. To find out how we access the internet in school. To research and find out about the age of the internet. To think about what the future might hold.	To examine how whole numbers are used as the basis for representing all types of data in digital systems. To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics. To examine how whole numbers are used as the basis for representing all	To identify the purpose of writing a blog. To identify the features of successful blog writing. 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 the importance of commenting on

	To understand the different options of generating user input in 2Code. To understand how user input can be used in a program. To understand how 2Code can be used to make a text-based adventure game.	user/device, e.g., apps accessing location. To identify secure sites by looking for privacy seals of approval, e.g., https, padlock icon. To identify the benefits and risks of giving personal information and device access to different software. To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. To begin to understand how information online can persist and give away details of those who share or modify it To review the meaning of a digital footprint and understand how and why people use			types of data in digital systems. To recognise that the numbers 0, 1, 2 and 3 could be represented by the patterns of two binary digits of 00, 01, 10 and 11 To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary. To examine how whole numbers are used as the basis for representing all types of data in digital systems. To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary. To explore how division by two can be used as a technique to determine the binary representation of any whole number by collecting remainder terms To examine how whole numbers are used as the basis for representing all types of data in digital systems. To represent the state of an object in a game as active or	blogs. To peer-assess blogs against the agreed success criteria. To understand how and why blog posts and comments are approved by the teacher. To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz To explore the grammar quizzes. To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents.

		their information and online presence to create a virtual image of themselves as a user. To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. To begin to understand how information online can persist and give away details of those who share or modify it			inactive using the respective binary values of 1 or 0.	