

DIGITAL LITERACY: Unit 1.1 - Online Safety and Exploring Purple Mash				
Lesson	Objectives	Working towards	Meeting expectations	Exceeding expectations
L1 Safe Logins	- 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.	- With support, children demonstrate an awareness of online safety using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1). This can be assisted by using printed login cards. - Children take ownership of their work and save this in their own private space (Unit 1.1 Lesson 1).	- Children demonstrate an understanding of the importance of online safety, using their own private usernames and passwords for Purple Mash (Unit 1.1 Lesson 1). - Most children will be able to demonstrate an understanding of the reasons for keeping their password private including talking about the meaning of 'private information' (Lesson 1) and actively demonstrate this in lessons (Throughout all lessons in Unit 1.1). - Children take ownership of their work and will be able to save their work, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.1 Lesson 1. Most children will be able to add their name to their picture in lesson 1. - In lesson 2, most children will be able to explain that their teacher was able to connect with them online to leave a message in Purple Mash. They could contribute to the class discussion relating this to other forms of digital communication. - Most children will be able to give a simple explanation of the way to word comments online when given the example of their teacher commenting upon their work. Throughout this unit most children will be able to contribute their ideas about communicating appropriately and relate online and off-line appropriate behaviour. - Most children will be able to open Purple Mash and use the search bar within Purple Mash to find resources (lesson 2). They can suggest appropriate words to search with to find the results that they are looking for.	- Children demonstrate an understanding of the importance of online safety using their own private usernames and passwords for Purple Mash. - Children understand the importance of keeping information, such as their usernames and passwords private and actively demonstrate this in lessons. - Children take ownership of their work and save this in their own private space. - Children demonstrating greater depth understand the principle but not the terminology of 'intellectual property' e.g., children might say 'I am saving my work, in my folder because I have created it and it belongs to me'.
L2 My Work Area	- 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.			
L3 Purple Mash Topics	- 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 pictures and text to work.			
L4 Purple Mash Tools	- 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.			

COMPUTER SCIENCE: Unit 1.2 – Grouping and Sorting				
Lesson	Objectives	Working towards	Meeting expectations	Exceeding expectations
L1 Sorting Away from the Computer	To sort items using a range of criteria.	☐ With support, children can physically sort items using a limited number of given criteria (Unit 1.2 Lesson 1). ☐ Using Purple Mash, children can sort items into two clearly defined groups using given criteria (Unit 1.2 Lesson 2).	☐ Children can physically sort, collate, edit, present, search through, re-order and re-structure items using a range of given criteria (Unit 1.2 Lesson 1). ☐ Using Purple Mash, children can sort items into three clearly defined groups using given criteria (Unit 1.2 Lesson 2). ☐ Most children can sort physical objects using a range of criteria e.g., shape: Number of sides, colour, equal length sides etc. They can apply this skill within Purple Mash using the range of sorting activities with more than one criterion (All of Unit 1.2).	☐ Children demonstrate their depth of understanding by creating their own criteria for items against which they can physically sort, collate, edit, present, search through, re-order and re-structure and explain their reasoning (Unit 1.2 Lesson 1). ☐ Using Purple Mash, children can also sort items into Venn diagrams using given criteria (Unit 1.2 Lesson 2).
L2 Sorting on the Computer	To sort items on the computer using the 'Grouping' activities in Purple Mash.			

INFORMATION TECHNOLOGY: Unit 1.3 – Pictograms				
Lessons	Objectives	Working towards	Meeting expectations	Exceeding expectations
L1 Data in Pictures	To understand that data can be represented in picture format.	☐ With support, children can organise a limited set of data into a physical pictogram (Unit 1.3 Lesson 1) and a virtual pictogram (Unit 1.3 Lesson 2). ☐ With support, children use this data to answer given questions. ☐ Working as a group, children can create, store, retrieve and share their pictograms (Unit 1.3 Lesson 3).	☐ Children can collate and organise class data into a physical pictogram (Unit 1.3 Lesson 1) and a virtual pictogram (Unit 1.3 Lesson 2) ☐ Children can then interrogate this data to answer given questions. Children can create, store, retrieve and share their own pictograms (Unit 1.3 Lesson 3). ☐ Most children will be able to save their pictograms, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later (Unit 1.3 Lesson 3.) ☐ Children can represent simple collected data in an appropriate pictogram by using 2Count (Unit 1.3. Lesson 3). ☐ Most children can collate data from rolling a die and record the results within 2Count. They demonstrate that they can use 2Count to group collated data into pictorial representations (Pictograms) Unit 1.3. Lesson 3).	☐ Children can collate and organise class data into a physical pictogram (Unit 1.3 Lesson 1) and a virtual pictogram (Unit 1.3 Lesson 2) ☐ Children can then interrogate this data to present statements about the data e.g. 'The second most popular form of transport was...'. Independently, children can create, store, retrieve and share their own pictograms (Unit 1.3 Lesson 3).
L2 Class Pictogram	To contribute to a class pictogram.			
L3 Recording Results	To use a pictogram to record the results of an experiment.			

COMPUTER SCIENCE: Unit 1.4 – Lego Builders

Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 Following Instructions	To emphasise the importance of following instructions.	☐ Children understand that to achieve the effect they want when building something, they need to follow instructions.	☐ Children can assimilate a set of simple Lego model instructions and look at the outcomes produced from these instructions. ☐ They can state where an error has occurred on one of the models from the instructions given (Unit 1.4. Lesson 1). ☐ Children understand the effect that accuracy of the instructions has on the outcome.	☐ Children understand the effect that precise accuracy of the instructions has on the outcome. ☐ Children can give instructions that demonstrate they are anticipating the outcome.
L2 Following and Creating Simple Instructions on the Computer.	To follow and create simple instructions on the computer.	☐ They can give another child instruction to build a simple model, but their instructions might not anticipate all possibilities. ☐ Children know that computers need instructions to operate.	☐ Children can give each other precise simple instructions and follow them to create the desired outcomes for their Lego model (Unit 1.4. Lesson1). ☐ They can give another child instruction to build a simple model, anticipating the information that the other child will need to make an accurate replica. ☐ Children can compare their digital paintings within 2Paint and show an understanding as to why they are different.	☐ They can give another child detailed instruction to build a simple model, anticipating the information that the other child will need to make an accurate replica at a more detailed level. ☐ Children know that an algorithm is a set of instructions used to solve a problem or achieve an objective.
L3 To consider how the order of instructions affects the result.	To consider how the order of instructions affects the result.	☐ Children can attempt to write instructions for a simple recipe but might not include all required steps.	☐ They can consider that instructions are needed to give the pictures uniformity and as such are able to follow a set of instructions (Algorithm) to achieve this (Unit 1.4. Lesson 2). ☐ Children know that an algorithm is a set of instructions used to solve a problem or achieve an objective. ☐ Children know that an algorithm written for a computer to follow is called a program. ☐ Children can debug a very simple set of printed instructions for a recipe, the approach they use should entail breaking the instructions into smaller parts to support interpretation. ☐ Most children can create a set of written instructions for other pupils to follow e.g., the 'coders and robot' game (Unit 1.4. Lesson 2). ☐ Children can confidently debug simple errors in other children's written instructions for recipes (Unit 1.4). ☐ Children understand that very precise instructions need to be given to a computer for it to accurately carry out intended outcomes. These precise instructions can be broken down into smaller parts. ☐ Children can demonstrate this by playing a 'coders and robots' game (Unit 1.4. Lesson 2).	☐ Children know that an algorithm written for a computer to follow is called a program. ☐ They can work out what is wrong in an algorithm when the steps are out of order and can debug the algorithm. ☐ They can write their own algorithm for a recipe.

COMPUTER SCIENCE: Unit 1.5 – Maze Explorers				
Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 Challenges 1 and 2	- 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.	- Children can use the buttons to move their character purposefully. They move one step at a time towards the goal rather than anticipating several steps. - In (Unit 1.5 Lesson 2), they needed support with challenges 4 and 5 which require anticipating several steps.	- Children can use the buttons to move their character purposefully. - They can plan their moves several steps at a time towards the goal rather than one step at a time. - In (Unit 1.5 Lessons 2 & 3), they were able to complete challenges 4 and 5 which require anticipating several steps. - In (Unit 1.5 Lessons 2 & 3), children can complete challenges 4 and 5 which require anticipating several steps to build a program.	- Children choose to plan their moves several steps at a time towards the goal even reaching the goal in one 'run' of the program rather than one step at a time. - In (Unit 1.5 Lessons 2 & 3, they were able to complete challenges 4 - 6 which require anticipating several steps with ease. - Children challenge themselves by creating their own complex challenges.
L2 Challenges 3 and 4	- 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).	- Children can tackle challenges 4-6 with support, though they might not complete all challenges. - They are starting to be able to work out why their program doesn't work as they expect and know that it is due to the instructions which they are inputting rather than a fault with the computer understanding the instructions.	- They know that any unexpected outcome is due to the code that they have created and make logical attempts to try to fix this code rather than attributing it to a fault with the computer understanding the instructions. - Children can explain the possible ways to make their turtle move in the different levels of 2Go. - When looking at a program they can 'read' the code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	- Children choose to plan their moves several steps at a time towards the goal. - In (Unit 1.5 Lessons 2 & 3), they can complete challenges 4 - 6 which require anticipating several steps with ease. - Children challenge themselves by creating their own complex challenges.
L3 Challenges 5 and 6	- To use the additional direction keys as part of their algorithm. - To understand how to change and extend the algorithm list. - To create a longer algorithm for an activity.	- With support, children can explain the possible ways to make their turtle move. - When looking at a program they can 'read' the code one line at a time but might not be able to envision the bigger picture of the overall effect of the program.	- When presented with an example from challenges 4-6, they can sometimes work out where the turtle will end up at the end of the program and when they are incorrect, they will make good attempts to work out why. - Most children will be able to save their 2go maze files, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.5 Lesson 4.	- They intuitively debug their code knowing that any unexpected outcome is down to the code and not the computer's understanding. - Children can explain the possible ways to make their turtle move in the different levels of 2Go.
L4 Setting More Challenges	- To provide an opportunity for the children to set challenges for each other. - To provide an opportunity for the teacher to add these challenges to a display board for the class to try.	When presented with an example from challenges 4-6, they will struggle to work out where the turtle will end up at the end of the program but will know that it will move.	Using 2Go, children can use simple direction keys in conjunction with a number pad (add a unit of measurement) to move an on-screen character to specific locations on a screen.	- When looking at a program they can 'read' the code one line and envision the bigger picture of the overall effect of the program. - When presented with an example from challenges 4-6, they can often work out where the turtle will end up at the end of the program and when they are incorrect, they are able to work out why.

		☐ They demonstrate that their sequence of buttons relates to their thinking of how to solve a problem of getting character from point A to point B (Unit 1.5. Lesson 1). ☐ As children move through this unit, they demonstrate an ability to successfully use diagonal direction keys combined with number pad to refine their solution for solving a problem (Unit 1.5. Lessons 2 to 3). ☐ Most children can make a screen character 'sprite' navigate to a specific place using 2Go. Using strategies such as drawing the route with their finger, counting squares with a grid and testing how many squares each command moves the character, the children have broken down a problem to solve a solution (Unit 1.5. Lesson 1). ☐ Children can use the 'list' feature in 2Go to generate an algorithm to solve a given problem. ☐ They test their instructions until they finally make an algorithm which works (Unit 1.5. Lesson 2). ☐ Their skill of breaking down a problem to solve it is evident in their ability to create increasingly longer and more complex algorithms, including number of units moved and diagonal controls (Unit 1.5. Lessons 3 & 4). ☐ Most children can change an algorithm to create a different outcome when using 2Go. ☐ Their skill at debugging an algorithm and then changing it to perform an intended outcome is secure. ☐ Children use alternative algorithms to achieve the same outcomes, beginning to understand refinement of instruction (Unit 1.5. Lesson 3).	
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INFORMATION TECHNOLOGY: Unit 1.6 - Animated Stories				
Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 Drawing and Creating	- To understand the differences between traditional books and e-books. - To explore the tools of 2Create a Story's My Simple Story level. - To save the page they have created.	☐ With support, children use the 'My Simple Story' aspect of 2Create a Story to create a simple interactive story (Unit 1.6 Lesson 1). ☐ With limited success, children can manipulate the properties of their story by changing the images, adding animations (Unit 1.6 Lesson 2) and sound (Unit 1.6 Lesson 3) as well as typing, copying and pasting pages (Unit 1.6 Lesson 5). ☐ Children are taught the importance of saving their work, overwriting saved files and retrieving their saved work (Unit 1.6 Lesson 1).	☐ Children can use the 'My Story' aspect of 2Create a Story to create an interactive story (Unit 1.6 Lesson 1). ☐ They can manipulate the properties of their story by changing the images, adding animations (Unit 1.6 Lesson 2) and sound (Unit 1.6 Lesson 3) as well as typing, copying and pasting pages (Unit 1.6 Lesson 5). ☐ Children are taught the importance of saving their work, overwriting saved files and retrieving their saved work. ☐ Children can include their name and date within the text of their e-books. ☐ Children demonstrate their understanding by discussing e-books and by sharing their own book with others on a class displayboard. ☐ Children make valid comparisons between paper book and e-books. They can apply their knowledge of paper book when developing their e-books. ☐ Most children will be able to save their animated story files, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later Unit 1.6 Lesson 1.	☐ Children can use the 'My Story' aspect of 2Create a Story to create a detailed interactive story (Unit 1.6 Lesson 1). This demonstrates their ability to combine all the aspects available within the software e.g. recording their own sounds and importing backgrounds, to enhance their narrative. ☐ Children are taught the importance of saving their work, overwriting saved files and retrieving their saved work (Unit 1.6 Lesson 1). ☐ Furthermore, they can publish this to a class display board (Unit 1.6 Lesson 5).
L2 Animation	- To add animation to a picture. - To play the pages created so far. - To save the additional changes and overwrite the file.			
L3 Sounds and More!	- To add a sound effect to a picture. - To add a voice recording to the picture. - To add created music to the picture.			
L4 Making a Story	- 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.			
L5 Copy and Paste	- 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.			

COMPUTER SCIENCE: Unit 1.7 – Coding				
Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 Instructions	- 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.	- Children have a basic understanding that coding involves writing instructions that a computer can follow. - They are developing their understanding that these instructions must be precise and carefully structured through their work making simple one and two Stage programs (for example in programs where they make an object move when clicked on).	- Children can both give and receive verbal instruction to achieve a simple outcome such as getting from one point of the classroom to the other whilst avoiding obstacles. Furthermore, they can use printed block-based code to also articulate a simple set of instructions (Unit 1.7 Lesson 1). - Children can apply off-screen block code to on-screen block code within 2Code (Unit 1.7 Lessons 2, 3). - Children can consider a variety of factors when coding, including the way that the program is designed (Unit 1.7 Lesson 5). They can then design programs that control the look and the actions of objects.	- Children can consider a variety of factors when coding including the way that the program is designed. They can then design programs that control the look and the actions of objects. - Children will try, test and often succeed in using code blocks that are new to them and that haven't been explained (e.g. event in Unit 1.7 Lesson 2 and Sound in Unit 1.7 Lesson 3). - They intuitively debug their code knowing that any unexpected outcome is down to the code and not the computer's understanding.
L2 Objects and Actions	- To use code to make a computer program. - To understand what objects and actions are.	With support, children can create a simple one Stage program that achieves a specific purpose. (In Unit 1.7 Lesson 2, they can make a fish object move).	Their designs show that they have thought about the need for precise, purposeful, ordered instructions. For example, (Unit 1.7 Lesson 6), they consider the kinds of actions they know to be possible when designing their program.	When looking at a program they can 'read' the code one line at a time and take account of the nesting of lines of code inside each other e.g. the action of a click event.
L3 Events	- To understand what an event is. - To use an event to control an object.	With support, they can create a scene (Unit 1.7 Lesson 5) and plan to make objects move (Unit 1.7 Lesson 6).	Children think about the program they are making with reference to the objects, the actions and the output e.g. they know that an object will get clicked on and then an object will do something in response (Unit 1.7 Lesson 6). They can then construct their code purposefully to make objects interact.	Children can explain the possible actions of objects including moving and responding to being clicked on.
L4 When Code Executes	- To understand what an event is. - To begin to understand how code executes when a program is run.	Children are beginning to understand that they can correct unexpected outcomes by changing the code and they make attempts to identify the source of bugs.	Using the 2Code design mode, children can manipulate how their program looks by adding and changing objects.	They can also use their prior coding experience to recognise whole blocks of familiar code instead of reading line by line which helps them to envision the bigger picture of the overall effect of the program.
L5 Setting the Scene	- To understand what backgrounds and objects are. - To understand how to use the scale property.	- With support, children can explain the possible actions of objects including movement and sound. - When looking at a simple program they can 'read' the code one line at a time and predict what will happen but might not be able to envision the	They can break a problem down into small chunks and then combine it to see an outcome e.g.	Using the 2Code design mode and the properties table, children can manipulate how their program looks (Unit 1.7 Lesson 5).

Year 1 Computing Progression

L6 Using Plan	• To plan a computer program. • To make a computer program.	bigger picture of the overall effect of the program. □ With support, children can manipulate how their program looks using the 2Code design mode, by adding and changing objects (Unit 1.7 Lesson 5). □ They can create a program that controls an object.	combine two parts of code “When we click the red bubble, red bubble hides.” □ They know that any unexpected outcome is due to the code that they have created and make logical attempts to try to fix this code rather than attributing it to a fault with the computer understanding the instructions. □ When looking at a program they can ‘read’ the code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	□ They can create a program that controls multiple objects (Unit 1.7 Lesson 6).
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INFORMATION TECHNOLOGY: Unit 1.8 – Spreadsheets				
Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 Introduction to Spreadsheets	- To understand what a spreadsheet looks like. - To be able to navigate around a spread sheet and enter data. - To learn new vocabulary related to spreadsheets.	☐ With support, children can save and open sheets (Unit 1.8 Lesson 1), enter a limited quantity of data into cells (Unit 1.8 Lesson 1), manipulate data using the 'move cell' tool (Unit 1.8 Lesson 2) and use the image toolbox to add clipart (Unit 1.8 Lesson 2).	☐ Using the 2Calculate spreadsheet, children can save and open sheets (Unit 1.8 Lesson 1). ☐ Most Children will be able to save their 2Calculate files, using a memorable file name, to their own personal space on Purple Mash and understand that this can be retrieved later. ☐ They can enter data into cells (Unit 1.8 Lesson 1), manipulate data using the 'move cell' tool (Unit 1.8 Lesson 2) and use the image toolbox to add clipart (Unit 1.8 Lesson 2).	☐ Using the 2Calculate spreadsheet, children can save and open sheets (Unit 1.8 Lesson 1), enter data into cells (Unit 1.8 Lesson 1), manipulate data using the 'move cell' tool (Unit 1.8 Lesson 2) and use the image toolbox to add clipart (Unit 1.8 Lesson 2). ☐ Children will demonstrate greater depth by explaining the data and sorting it (suggested extension).
L2 Adding Images to a Spreadsheet and Using the Image Toolbox	- To add clipart images to a spreadsheet. - To use the 'move cell' and 'lock' tools.			
L3 Using the 'Speak' and 'Count' Tools in 2Calculate to Count Items	To use the 'speak' and 'count' tools in 2Calculate to count items.			

DIGITAL LITERACY: Unit 1.9 - Technology Outside School				
Lessons	Objective	Working towards	Meeting expectations	Exceeding expectations
L1 What is Technology?	To find and understand examples of where technology is used in the local community	☐ With support, children understand what is meant by technology and can identify a limited number of examples both in and out of school. Children record this using (Unit 1.9 Lesson 1. Worksheet 1) & (Unit 1.9 Lesson 2. Worksheet 1).	☐ Children understand what is meant by technology and can identify a variety of examples both in and out of school. Children record this using (Unit 1.9 Lesson 1. Worksheet 1) & (Unit 1.9 Lesson 2. Worksheet 1). ☐ Children' discussion shows that they have a good understanding about the technological devices in use in their daily lives and how some of these facilitate communication of a variety of formats. ☐ Children can explain at a basic level that we should treat others politely regardless of the means of communication. ☐ Children can compare the speed and ease of technology to non-technological actions e.g., e-mail, buying an app or painting on screen.	☐ Children understand what is meant by technology and can identify a variety of examples both in and out of school. ☐ They can explain why a certain technology has been chosen as a solution to a specific problem. Children record this using (Unit 1.9 Lesson 1. Worksheet 1) & (Unit 1.9 Lesson 2. Worksheet 1).
L2 Technology outside school.	To record examples of technology outside school.			