| Y1 | Online Safety/exploring PM (mostly knowledge)

-To log in safely. To start to understand the idea of 'ownership' of their creative work.
-To learn how to find saved work in the Online Work area and find teacher comments.
-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 pictures and text to work.
-To explore the Tools section of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. To explore the Games section on Purple Mash.
-To understand the importance of logging out when they have finished | Grouping and sorting
- To sort items using a range of criteria.
- To sort items on the computer using the 'Grouping' activities in Purple Mash. | Pictograms

- 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. | Maze explorers/coding

-To understand the functionality of basic direction keys.

-To debug an algorithm.

-To modify and sequence algorithms | Animated story books

-To create characters and story.

-To add animations

-To modify backgrounds

-To sequence animations and share e-books. | Technology outside of school
(mostly knowledge based)

-To understand what is meant by 'technology'

-To have an awareness of technology outside of school |
| Y2 | Coding
-To understand what is meant by coding (knowledge)
-To modify and sequence a programme where objects can stop moving and a sound is played.
-To explain how to use the following terms in a computer program: Command, Repeat, Input, Output, | Online safety
(mostly knowledge)
-To know how to refine searches using the Search tool.
-To know how to share work electronically using | Questioning

-To understand that the information on pictograms cannot be used to answer more complicated questions.(knowledge)
- To separate and modify information. | Presenting ideas

-To explore how a story can be presented in different ways (knowledge).
- To create and design a quiz about | Creating pictures

- To be introduced to 2Paint a Picture.(knowledge)
-To look at the impressionist style of art (Monet, Degas, Renoir). (knowledge) | |

Event, Collision Detection and Timer (knowledge) -Pupils can sequence a computer program including at least four of the above new coding vocabulary terms -To understand what debug means (knowledge) -To debug. -To sequence a programme using different objects.	the display boards. -To use digital technology to share work on Purple Mash to communicate and connect with others locally. - To have some knowledge and understanding about sharing more globally on the Internet. -To understand that Email is a form of communication. - To understand how we talk to others when they are not there in front of us. - To open, input send simple an email. -To understand that information put online leaves a digital footprint or trail. -To begin to think critically about the information they leave online. -To identify the steps that can be	- To create a binary tree to separate different items. -To use a binary tree to answer questions. - To use a database to answer more complex search questions. - To use the Search tool to find information.	a story or class topic. - To create and design a fact file on a nonfiction topic. - To create a presentation to the class.	- To recreate pointillist art and look at the work of pointillist artists such as Seurat - To look at the work of Piet Mondrian and recreate it using the Lines template. - To look at the work of William Morris and recreate it using the Patterns template.	

		taken to keep personal data and hardware secure.				(grey cell)

Y3	**Coding** -To understand what coding is. (knowledge) - To use 2Chart to represent a sequential program design. - To use the design to write the code for the program. -To design and write a program that simulates a physical system. -To look at the grid that underlies the design and relate this to X and Y properties. -To use a variable to create a timer. To create a program with an object that repeats actions indefinitely and use the repeat command. - To debug simple programs.	**Email** - To think about different methods of communication (knowledge). - To open and respond to an email. -To learn how to use email safely (knowledge). - To add an attachment to an email. - To explore a simulated email scenario.	**Branching databases** - To sort objects. - To complete a branching database - To create a branching database.	**Simulations** -To consider what simulations are (knowledge). - To explore a simulation, try out different options and to test predictions. -To create a simple simulation.	**Spreadsheets** -To create pie charts and bar charts. -To use tools to compare numbers. -To describe and find cell locations.	**Touch typing** - To introduce typing terminology (knowledge). - To practice and improve typing.
Y4	**Coding** - To review coding vocabulary (knowledge). - To use the design to create a program. -To create a programme and manipulate variables. -To know what decomposition and abstraction are in computer science (knowledge). -To take a real-life situation, decompose it and think about the level of abstraction. - To design a decomposed feature of a real-life situation.	**Internet safety** (mostly knowledge) -To understand how pupils can protect themselves from online identity theft. -To understand that information put online leaves a digital footprint or trail and that this	**Spreadsheets** - To appropriately format numbers. -To use a series of data in a spreadsheet to create a line graph. - To make practical use of a spreadsheet to help them plan actions (knowledge). - To explore place value using a spreadsheet (knowledge).	**Animation** - To understand animation frames (knowledge). - To create a simple animation. -To understand what onion skinning is (knowledge). -To add backgrounds and sounds to animations.	**Hardware investigators** (knowledge) - To understand the different parts that make up a computer. - To recall the different parts that make up a computer.	**Writing for different audiences** -To explore the impact of different text sizes. - To create a news report. -To create a campaign.

		can aid identity theft. - To Identify the risks and benefits of installing software including apps. - To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. - To identify appropriate behaviour when online. -To identify the positive and negative influences of technology. - To understand the importance of balancing game and screen time with other parts of their lives.		-To use stop motion to create an animation.		
Y5	Coding -To review coding vocabulary (knowledge). -To create a programme - To design and write a program that simulates a physical system - To explore text variables (knowledge)	Online safety (mostly knowledge) - To understand the impact that sharing digital content can have	Spreadsheets - create a formula in a spreadsheet to convert m to cm - apply this to creating a spreadsheet that	Game creator -To consider what games are like (knowledge) - To design the game environment	Concept maps - To know what a concept map is (knowledge)	

	- To create a playable, competitive game - To read code (knowledge) - To create a program to inform others.	- To review pupils' responsibility to one another in their online behaviour - To know how to maintain secure passwords - To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online -To learn about how to reference sources in their work - To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information.	converts miles to km and vice versa. -To use a spreadsheet to work out which letters appear most often - To use the 'how many' tool - to solve a real-life problem using a spreadsheet - can use a spreadsheet to model a real-life situation and come up with solutions that can be practically applied	- To evaluate their and peers' games (knowledge)	- To understand and use the correct vocabulary when creating a concept map. - To create a collaborative concept map and present this to an audience.	
Y6	Coding -To design programs using their choice of objects, attributing specific actions to each using their new programming knowledge - To use manipulate variables within a game	Online safety (mostly knowledge) - Identify benefits and risks of mobile devices broadcasting	Spreadsheets -To create a spreadsheet. - To use a spreadsheet to model real life situations. -To create, manipulate and modify formulas.	Blogging -To identify the purpose of vlogs. -To understand how to contribute to an existing blog. -To understand how and why blog	Networks (mostly knowledge) -To find out what a LAN and a WAN are. To find out how we access the internet in school.	

- To debug a program and organise the code into tabs - To organise code into functions and Call functions to eliminate surplus code in the program - To use flowcharts to test and debug a program. - To create a simulation of a room in which devices can be controlled -To design a text-based adventure game.	- Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon - To review the meaning of a digital footprint -		posts are approved by the teacher. -To peer-assess blogs against the agreed success criteria.	-To research and find out about the age of the internet. To think about what the future might hold.	

Strand:

Digital citizenship   IT   Computer Science

Skill:

Sort and group

Data handling/input

Debug

modify and sequence

design

predict

create

manipulate

decompose