Computing progression of Skills and Knowledge

VISION: To use technology safely and respectfully across the curriculum. (IT skills taught using Purplemash)

Strand	EYFS	Year 1	Year 2
E-safety (ongoing throughout the year through all computing teaching) **Purplemash online safety lessons.**	Can speak to an adult about what I have seen. Can talk about what they are doing on the computer. Can explain how something they see makes them feel. Can follow the safer internet rules. Understand that we do not talk to strangers. (playing on games with other people) (Think u know – Jessie and Friends)	Understanding what personal information is. Understand importance of not sharing personal information. (eg. Photos) To understand that sometimes content appears that is not your fault. Eg. Pop ups. Know how to act if I see inappropriate content online. Know how we treat each other respectfully whether on a computer or face to face. (online story – Smartie the Penguin)	Can begin to evaluate websites and know that everything on the internet is not true Know that the majority of technology devices have access to the internet Can understand that some information is personal and should not be shared online (photos, clubs, home) Know that passwords should not be shared and why. Know how to act if they find inappropriate content online. Follow the school's safer internet rules Begin to understand the term web address. Can I email safely as a class? (Chicken Clickin by Tony Ross)
Communicating and presenting	To know how to drop and drag using a mouse. Use the mouse to work a simple paint program with increasing control. Use digital devices to take a photo. Write name using the keyboard using the caps lock key. Purple mash – • Use mash cams • My story to talk in the role of a character/ story • Paint projects • 2beat • 2explore • 2paint • 2 design and make	Children understand that computers are a tool to create, save and explore through topic work. Is beginning to login, save, open work on mash. Can write name on the keyboard. Can use the backspace, return key and space bar. Can create an image related to the topic and add a title. Children can find messages that the teacher leaves on purplemash. Can search for purplemash resources. Can log out from purplemash. Children use drawing tools to create as picture book. Children can add text or sound to a page looking at font and size. Can add an animation to a picture. Can save, play the pages they have created **Programs:** • 2count, 2sort • Talking stories • Mashcams, paint projects • 2type	Understand key internet terms. Can identify basic parts of the web. Children can begin to understand how things can be saved electronically and on the internet. Pupils can use the search facility on google to refine a search. Understand what a digital footprint is and what they would not want to find on it. Understand how a tool bar works. Can create a leaflet or fact file to publish. Can draw an image on screen with detail and effect. Can create art based on a style. Can create a repeating pattern in a variety of ways. Can combine effects to enhance a picture. Can use the collage function. Can add images from clip art. Can make a presentation to the class. Can understand how music can be created through a program. Can open and respond to an email on purplemash. To explore, edit and combine sounds. To upload a sound from a soundbank. Children can alter work according to feedback. .**Programs:** • 2 publish, 2 create a story • 2quiz • Mashcams, 2animate • 2connect • 2sequence

Algorithms and Programs	Can understand that to make things work you need program them. Eg. washing machines, recorders, dvd players, sky boxes, phones, computers. Can make a bee bot go forwards, backwards, left and right. Can use a range of control toys and devices. Can turn equipment on and off and make it work eg. microphones, recording devises, CD players, computers, cameras Can complete a simple program.	Understand the terminology debugging and algorithm. Can program a bee bot to complete a set of instructions. Children can understand that the order they program will affect the outcome Is able to debug a simple set of instructions. Is able to debug a simple program. Can use directional keys to create an algorithm. Can use a 2code pre made program in order to make simple code. (make object move) Can read a line of code. **Programs:** • 2go • 2code	Read and understand an algorithm. Know that programs can be written and changed. Know that coding needs to be precise. Continue a code to complete a program. Use design mode to check what the program will look like and can switch top code mode. Can talk through the code they have created making predictions and explanations. Can debug their own and other peoples program on 2code. Can use free code to explore and create own programs. **Programs:** • 2code • freecode
Data retrieval, questioning and organising (databases, spreadsheets, graphs)	Can collect and discuss data as a class or group. Can insert data into a group or class pictogram. Can answer simple questions relating to the pictogram as a class.	Can use 'speak' and 'count' in order to count items. Can use purple mash programme to sort various items according to a criteria. Children can collect data and represent their own results as a pictogram, sharing and saving and retrieving. Can interrogate the data in order to answer simple questions. Children can contribute to a whole class database. Can navigate a premade spreadsheet, saving and locating the file. Can enter data into the cells using the 'move cell tool'. Program: • 2count • 2calculate	Understand what a database is and how it can be used. Understand that some data handling provides limited answers. (binary trees) Use a pre made binary tree in order to present, sort answers to questions. Design own physical binary tree. Can save, open and edit a spreadsheet. Can make a spreadsheet on purplemash Can use a spreadsheet to solve mathematical puzzles. Can enter data into cells allocating a value to an image. Can add colour and labels to a graph or spreadsheet. Can use data to create a block graph. Can answer questions about the data eg. Most or least popular Programs: • 2question • 2 investigate
Using technology (This can be taught cross curricular)	Can recognise a range of technology that is used in places such as homes and schools Can select and use technology for a particular purpose Can name and use a keyboard and mouse with developing control Can access and use simple activities using touch technology with increasing control	Can use the keyboard to write my name with a capital letter Know that there is a wide range of technology and can they name some equipment. Can use a range of different technology and talk about its use, and discuss new technologies. Can use keyboard skills to type a simple username into a given program. Can safely use technology by opening and closing a piece of equipment safely Can select the appropriate program by finding and retrieval through the school network. Can use keyboard skills to type a simple username and password into a given program Can save their work to a folder and retrieve it when needed.	Can begin to understand how to edit and copy information using a variety of media. Can use a wide range of technology and can describe how it works in a variety of different contexts I topic work can select the appropriate piece of technology for a particular purpose and communicate this Can save their work to a folder and retrieve it when needed Can understand how to edit and copy information using a variety of media Can I film short scenes, take photographs for a purpose and use recording devices & help to edit with others.