Computing Skills Document

	Nursery	Reception	Year 1	Year 2
Computer Science NC Objectives: • To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • To create and debug simple programs • To use logical reasoning to predict the behaviour of simple programs	• I can make a Bee-bot or similar move. • With support I can programme a Bee-bot (or similar) to make it move for a particular purpose. • I can explore and use simple repetition in music and dance. • I can say what will happens (or predict) when I press /swipe on a game using the iPad/whiteboard.	• Give commands/ instructions e.g. forward, backwards, go, stop, when using simple software/hardware • Make choices about the buttons/icons to press, touch or click on when using simple software/hardware. • I can programme a Bee-bot or similar, one instruction at a time and clear it at the end. • I can recognise that there is a problem and say what problem is (plugged or unplugged activities). • I can make predictions about what a programme will do/do next.	• I understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. • I know that a computer program turns an algorithm into code that the computer can understand • I can work out what is wrong with a simple algorithm when the steps are out of order • I can write their own simple algorithm • I know that an unexpected outcome is due to the code I have created • I can make logical attempts to fix the code • I can read code one line at a time and make good attempts to envision what will happen with a code	• I can explain that an algorithm is a set of instructions to complete a task. When designing • I know I need to be precise when designing algorithms so that they can be successfully converted into code. • I can create a simple program that achieves a specific purpose. • They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps. • I can identify the parts of a program that respond to specific events and initiate specific actions. • I can predict what will happen when I create a cause and effect sentence in a program.

Information Technology				
Information Technology NC Objectives: • To use technology purposefully to create, organise, store, manipulate and retrieve digital content	• I use technology appropriately through role-play. • I can recognise some technology that is used at home or school. • I can name and use an iPad with developing control.	• I can manage a device by correctly closing websites or apps and safely turning on and off. • I can name a keyboard and mouse and use with developing control. • I can use a digital device to create and store content e.g. taking a photo, videoing, artwork.	• I can sort, collate, edit and store simple digital content. • I can name, save and retrieve their work and follow simple instructions to access online resources within Purple Mash.	• I can organise data using a database such as 2Investigate • I can retrieve data using simple searches. • I can edit more complex digital data such as music compositions. • I am confident when creating, naming, saving and retrieving content. • I can use a range of media in my digital content including photos, text and sound.
Digital Literacy NC Objectives: • To recognise common uses of information technology beyond school • To use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	• I can recognise some technology that is used in places such as home and school. • I use technology appropriately through role play. • I can say if something I find on the internet makes me feel bad.	• I can select and use technology for a particular purpose. • I know that I need to stay safe when using technology. • I know what to do if I see things that upset me online at school. • I can access and use simple activities using touch technology with increasing control. • I can name some uses of IT beyond school	• I understand what is meant by technology and can identify a variety of examples both in and out of school. • I can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair. • I understand the importance of keeping information, such as their usernames and	• I can effectively retrieve relevant, purposeful digital content using a search engine. • I can share what I have learnt using text and pictures. • I can make links between technology I see around me, coding and multimedia work I do in school. • I know the implications of inappropriate online searches.

		e.g. audio books, listening to music, watching films, creating paintings, send messages.	passwords, private and actively demonstrate this in lessons. • I take ownership of my work and can save in my private space such as their My Work folder on Purple Mash.	• I am beginning to understand how things are shared electronically. • I know ways of reporting inappropriate behaviours and content to a trusted adult.