Subject Knowledge and Skills Progression- Nursery to Year 6

Skills	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Literacy	Use technology for a particular purpose (guided access) Identify appliances that are powered by electricity. Learn how to take a photograph on a tablet.	Select and use technology for a particular purpose.	Use technology to create, store and retrieve digital content.	Use technology purposefully to create, store, retrieve, organise and manipulate digital content.	Use a variety of software on digital devices.	Select and use a variety of software on digital device Troubleshoot a device that is working incorrectly.	Express own ideas by selecting, using and combining a variety of software on digital devices to design and create programs.	Express own ideas by selecting, using and combining a variety of software on a range of digital devices to create programs.
e-safety	Take turns when using a screen using a timer.	Recognise that a range of technology is used in places such as home and school. Understand sensible screen time and the importance of taking a break from a screen. Begin to understand how to use technology safely.	Develop an understanding of how to use technology safely Know where to go for help/support when they have concerns about content/contact on internet. Know how to use the internet and digital devices Know how to communicate online.	Use technology safely and respectfully, keeping personal information private. Identify where to go for help/support when concerned about content/contact on internet/other online technologies. Know how to use the internet in everyday life: online content and information.	Use technology safely, respectfully, and responsibly Recognise acceptable/unacceptable behaviour and identify ways to report concern about content and contact. Know how the internet is used and how to assess information online.	Recognise acceptable/unacceptable behaviour and identify ways to report concerns about content and contact. Know how data is shared and used.	Confidently, competently and responsibly use information and communication technology. Understand the need to select age-appropriate content. Know how information online is targeted; different media types, their role and impact.	Confidently, competently and responsibly use information and communication technology. Identify a range of ways to report concerns about content and contact in and out of school. Know how to evaluate media sources: sharing things online.

Information Technology	Engage in a range of apps to support own learning.	Recognise that a range of technology is used in places such as home and schools. Know that we can use the internet to find out more information and use it in our own enquiries.	Begin to recognise common uses of information technology beyond school. Use technology purposefully to create digital content.	Recognise common uses of information technology beyond school. Use technology purposefully to create digital content comparing the benefits of different programs.	Show emerging understanding of computer networks including the internet and how they provide multiple services such as the World Wide Web Use some search technologies effectively and appreciate how results are selected. Decide which questions to ask when using search engines With support, select and use a variety of software to accomplish goals.	Understand computer networks including the internet and how they provide multiple services such as the World Wide Web Use search technologies effectively and appreciate how results are selected and ranked. Evaluate the reliability of digital content. Begin to ask and answer questions based on the reliability of digital content.	Use a wide range of search technologies effectively and appreciate how results are selected and ranked. Be discerning in evaluating the reliability of digital content. Independently select, use and combine a variety of software for a task. Independently select, use and combine a variety of software to design and create content for a given audience.	Use the opportunities computer networks offer for communication and collaboration. Appreciate how results are selected and ranked and use this to retrieve accurate content. Independently select, use and combine a variety of software to design and create content for a given audience including collecting, analysing, evaluating and presenting data and information.
Computer Science	Understand "cause and effect"- click or press to make something happen.	Explore "cause and effect" when selecting/pressing different buttons. Program simple robots by commanding different directions	Begin to develop an understanding of algorithms. Begin to understand that programs work by following	Understand what algorithms are. Understand how algorithms are implemented as programs on digital devices.	Start to use reasoning to understand how algorithms work. Detect errors in algorithms and programs. Begin to solve problems	Use logical reasoning to understand how algorithms work Detect and correct errors in algorithms and programs. Start to use sequence,	Write and debug programs that accomplish specific goals, including controlling or simulating physical systems.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical

			instructions. Create simple programs and begin to debug them. Develop reasoning to predict the behaviour of simple programs.	Understand that programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the behaviour of simple programs. Create and debug simple programs.	by decomposing them into smaller parts. Start to use sequence and selection in programs. Begin to develop understanding of how to write and debug programs that accomplish specific goals, including controlling or stimulating physical systems. Begin to work with various forms of input/output	selection and repetition in programs. Write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Begin to solve problems by decomposing them into smaller parts. Work with variables and various forms of input/output	systems. Solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs. Accurately manipulate variables in various forms of input/output Use logical reasoning to understand how algorithms work and detect and correct errors in algorithms and programs.	systems. Solve problems by decomposing them into smaller parts. Use sequence, selection and repetition accurately in programs. Accurately manipulate a wide range of variables and various form of input/output. Securely use logical reasoning to understand how algorithms work.