Computing Progression of Skills

Skill focus	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science • Problem solving • Programming • Logical thinking	*Problem solving:* - Make choices about the buttons/icons to press, touch or click on when using simple software/hardware - Give commands/instructions e.g. forward, backwards, go, stop, when using simple software/hardware *Programming:* Completes a simple program on a computer.	*Problem solving:* - Understand what algorithms are - Understand how algorithms are implemented as programs on digital devices	*Problem Solving:* - Understand what algorithms are - Understand how algorithms are implemented as programs on digital devices	*Problem Solving:* - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Solve problems by decomposing them into smaller parts	*Problem Solving:* - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Solve problems by decomposing them into smaller parts	*Problem Solving:* - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Solve problems by decomposing them into smaller parts	*Problem Solving:* - Design, write and debug programs that accomplish specific goals - Controlling or simulating physical systems - Solve problems by decomposing them into smaller parts
		Programming: - Create and debug simple programs.	*Programming:* - Create and debug simple programs	*Programming:* - Use sequence, selection and repetition in programs; work with variables - Work with various forms of input and output	*Programming:* - Use sequence, selection and repetition in programs; work with variables - Work with various forms of input and output	*Programming:* - Use sequence, selection, and repetition in programs; work with variables - Work with various forms of input and output	*Programming:* - Use sequence, selection, and repetition in programs; work with variables - Work with various forms of input and output
		Logical Thinking: - Use logical reasoning to predict the behaviour of simple programs	*Logical Thinking:* - Use logical reasoning to predict the behaviour of simple programs	*Logical Thinking:* - Use logical reasoning to explain how some simple algorithms work - Use logical reasoning to detect and correct errors in algorithms and programs - Understand computer networks including the internet - Understand how networks can provide multiple services, such as the world wide web	*Logical Thinking:* - Use logical reasoning to explain how some simple algorithms work. - Use logical reasoning to detect and correct errors in algorithms and programs. Understand computer networks including the internet - Understand how networks can provide multiple services, such as the world wide web	*Logical Thinking:* - Use logical reasoning to explain how some simple algorithms work - Use logical reasoning to detect and correct errors in algorithms and programs - Understand computer networks including the internet - Understand how networks can provide multiple services, such as the world wide web	*Logical Thinking:* - Use logical reasoning to explain how some simple algorithms work - Use logical reasoning to detect and correct errors in algorithms and programs - Understand computer networks including the internet - Understand how networks can provide multiple services, such as the world wide web

Digital Literacy • E-safety • Using IT beyond school	*E-safety:* - Use technology safely and respectfully - Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	*E-safety:* - 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.	*E-Safety:* - 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	*E-Safety:* - Use technology safely, respectfully and responsibly - Recognise acceptable/unacceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration	*E- Safety:* - Use technology safely, respectfully and responsibly - Recognise acceptable/unacceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration.	*E-Safety:* - Use technology safely, respectfully and responsibly - Recognise acceptable/unacceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration	*E-Safety:* - Use technology safely, respectfully and responsibly - Recognise acceptable/unacceptable behaviour - Know a range of ways to report concerns and inappropriate behaviour - Be discerning in evaluating digital content - Understand the opportunities networks offer for communication and collaboration
	Using IT beyond school: -Recognise technology that is used at home and in school. - Understand what a computer is and the different uses of computers e.g. learning, communicating, finding information, playing games etc. Reception -Experience a range of technology and learn how to use it in a safe way.	*Using IT beyond school:* - Recognise common uses of information technology beyond school	*Using IT Beyond School* - Recognise common uses of information technology beyond school				
Information Technology • Creating content • Searching	*Creating content:* -Manages a device by correctly closing websites or apps and safely turning on and off. -Input commands using the space bar, backspace, enter, letters and numbers on a keyboard on any	*Creating content:* - Use technology purposefully to organise, store and retrieve digital content	*Creating Content:* - Use technology purposefully to organise, store and retrieve digital content - Use technology purposefully to create and manipulate digital content	*Creating Content:* - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals	*Creating Content:* - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals	*Creating Content:* - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals	*Creating Content:* - Select, use and combine a variety of software (including internet services) on a range of digital devices - Design and create a range of programs, systems and content that accomplish given goals

device (including on a tablet). -Input commands using a mouse to control a cursor and use the left click to select options OR use finger control to interact with a tablet (double tap, swipe) -Experiences simple apps and software and use these to present ideas. ***Searching:*** - Knows that information can be retrieved from computers.			- Collecting, analysing, evaluating and presenting data and information ***Searching:*** - Use search technologies effectively - Appreciate how search results are selected and ranked	- Collecting, analysing, evaluating and presenting data and information ***Searching:*** - Use search technologies effectively - Appreciate how search results are selected and ranked	- Collecting, analysing, evaluating and presenting data and information ***Searching:*** - Use search technologies effectively - Appreciate how search results are selected and ranked	- Collecting, analysing, evaluating and presenting data and information ***Searching:*** - Use search technologies effectively - Appreciate how search results are selected and ranked