

Long-Term Progression of Skills in Computing

Progression in Computational Knowledge, Concepts and Skills	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer and Presentation Skills (including word processing skills and painting)	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.
	*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.	*Understand how to recognise acceptable and unacceptable behaviour.	*Understand how to recognise acceptable and unacceptable behaviour.	*Understand how to recognise acceptable and unacceptable behaviour.	*Understand how to recognise acceptable and unacceptable behaviour.
	*Using logical reasoning to predict the behaviour of simple programs.	*Using logical reasoning to predict the behaviour of simple programs.	*Understand how to identify a range of ways to report concerns about content and contact.	*Understand how to identify a range of ways to report concerns about content and contact.	*Understand how to identify a range of ways to report concerns about content and contact.	*Understand how to identify a range of ways to report concerns about content and contact.
	Using technology purposefully to create and manipulate.	Using technology purposefully to create and manipulate.				
Concepts Data Machines						
	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.
	*Understand programs and how to execute these by following precise and unambiguous instructions.	*Understand programs and how to execute these by following precise and unambiguous instructions.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.
	*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.
	*Using technology purposefully to create, organise and retrieve.	*Using technology purposefully to create, organise and retrieve.	*Working with variables and various forms of input and output.	*Working with variables and various forms of input and output.	*Working with variables and various forms of input and output.	*Working with variables and various forms of input and output.
	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.
	*Understand programs and how to execute these by following precise and unambiguous instructions.	*Understand programs and how to execute these by following precise and unambiguous instructions.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.	*Designing, writing and debugging programs that accomplish specific goals, including controlling or simulating physical systems.
	*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.	*Solving problems by decomposing into smaller parts.
	*Using technology purposefully to create, organise and retrieve.	*Using technology purposefully to create, organise and retrieve.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.	*Using sequence, selection and repetition in programs.
		*Create and debug simple programs.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.	*Using logical reasoning to explain how simple algorithms work.
			*Selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content.	*Selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content.	*Selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content.	*Selecting, using and combining a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content.
						*Understand computer networks including the internet.
						*Understand how computer networks can provide multiple services, such as the world wide web.
Online Safety Skills	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology safely and respectfully.	*Understand computer networks including the internet.		*Using search technologies effectively.	
	*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.	*Understand how computer networks can provide multiple services, such as the world wide web.		*Understand how results are selected and ranked.	
	*Using technology safely and respectfully	*Keep personal information private.			*Understand how to be discerning in evaluating digital content.	
		*Understand where to go for help and support with concerns about content or contact on the internet.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.	*Using technology safely, respectfully and responsibly.
			*Understand how to recognise acceptable and unacceptable behaviour.	*Understand how to recognise acceptable and unacceptable behaviour.	*Understand how to recognise acceptable and unacceptable behaviour.	
			*Understand how to identify a range of	*Understand how to identify a range of	*Understand how to identify a range of	

			ways to report concerns about content and contact.	ways to report concerns about content and contact.	ways to report concerns about content and contact.	ways to report concerns about content and contact.
Using and Applying <u>Concepts</u> Logic Abstraction Data Program Algorithms Machines	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.	*Understand what algorithms are and how they are implemented as programs on digital devices.
	*Recognise common uses of information technology beyond school.	*Create and debug simple programs.	*Create and debug simple programs.	*Create and debug simple programs.	*Create and debug simple programs.	*Create and debug simple programs.
		*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.	*Use logical reasoning to predict the behaviour of simple programs.
		*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology purposefully to create, organise, store, manipulate and retrieve.	*Using technology purposefully to create, organise, store, manipulate and retrieve.
		*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.	*Recognise common uses of information technology beyond school.
Communication Skills <u>Concepts</u> Data Algorithms Machines		*Using technology purposefully to create, organise, store and retrieve.	*Understand computer networks including the internet.			
		*Recognise common uses of information technology beyond school.	*Understand how computer networks can provide multiple services, such as the world wide web.			
		*Using technology safely and respectfully.	*Using search technologies effectively.			
		*Keep personal information private.	*Understand how results are selected and ranked.			
		*Understand where to go for help and support with concerns about content or contact on the internet.	*Understand how to be discerning in evaluating digital content.			
			*Using technology safely, respectfully and responsibly.			
			*Understand how to recognise acceptable and unacceptable behaviour.			
			*Understand how to identify a range of ways to report concerns about content and contact.			