Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Humankind	Communication	Recognise common uses of information technology beyond school. Know that for most people the internet is an integral part of life and has many benefits. `optional`	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. `optional` Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous. `optional` Know how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met. `required coverage, options x 1` Know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context). `required coverage, options x 1` Know how to respond safely and appropriately to adults they may encounter (in all contexts, including online) whom they do not know. `required coverage, options x 1` Know that for most people the internet is an integral part of life and has many benefits. `optional`	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Know that people sometimes behave differently online, including by pretending to be someone they are not. Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous. Know how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met. Know that for most people the internet is an integral part of life and has many benefits. Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Know about different types of bullying (including cyberbullying), the impact of bullying, responsibilities of bystanders (primarily reporting bullying to an adult) and how to get help. `required coverage` Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. Know how to report concerns or abuse, and the vocabulary and confidence needed to do so. Know that bullying (including cyberbullying) has a negative and often lasting impact on mental wellbeing. Know where and how to seek support (including recognising the triggers for seeking support), including whom in school they should speak to if they are worried about their own or someone else's mental wellbeing or ability to control their emotions (including issues arising online). `required coverage` Know where and how to report concerns and get support with issues online.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous. Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. Know how to report concerns or abuse, and the vocabulary and confidence needed to do so. `required coverage` Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private. Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health. Know where and how to report concerns and get support with issues online.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous. Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. Know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context). Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private. Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.

Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

	Staying safe	**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.**
		
		Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.
		
		Know about the concept of privacy and the implications of it for both children and adults; including that it is not always right to keep secrets if they relate to being safe.
		
		Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.
		
		Know where and how to report concerns and get support with issues online.
		`covered`
			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.
			
			Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.
			
			Know why social media, some computer games and online gaming, for example, are age restricted.
			
			Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.
			
			Know where and how to report concerns and get support with issues online.
			`optional`
				Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
				`optional`
				Know how information and data is shared and used online.
				`optional`
				Know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context).
				`required coverage, options x 1`
				Know about the concept of privacy and the implications of it for both children and adults; including that it is not always right to keep secrets if they relate to being safe.
				`optional`
				Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.
				`optional`
					Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
					
					Know the benefits of physical exercise, time outdoors, community participation, voluntary and service-based activity on mental wellbeing and happiness.
					`required coverage`
					Know about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing.
					
					Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.
						Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
						
						Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.
						
						Know how to critically consider their online friendships and sources of information including awareness of the risks associated with people they have never met.
						
						Know about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing.
						
						Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.
							Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
							
							Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.
							
							Know how information and data is shared and used online.

	Digital citizenship	Be responsible, competent, confident and creative users of information and communication technology.
		`optional x 2` `breadth`
			Be responsible, competent, confident and creative users of information and communication technology.
			`breadth`
			Know how information and data is shared and used online.
			
			Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.
				Be responsible, competent, confident and creative users of information and communication technology.
				`optional` `breadth`
				Know that in school and in wider society they can expect to be treated with respect by others, and that in turn they should show due respect to others, including those in positions of authority.
				`required coverage, options x 1`
				Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous.
				`optional`
				Know how to respond safely and appropriately to adults they may encounter (in all contexts, including online) whom they do not know.
				`required coverage, options x 1`
				Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.
				`optional`
					Be responsible, competent, confident and creative users of information and communication technology.
					`breadth`
					Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous.
					
					Know what sorts of boundaries are appropriate in friendships with peers and others (including in a digital context).
					
					Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.
						Be responsible, competent, confident and creative users of information and communication technology.
						`breadth`
							Be responsible, competent, confident and creative users of information and communication technology.
							`breadth`
							Know how information and data is shared and used online.

Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Processes	**Physical interactions**	**Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.** **Create and debug simple programs.** covered x 3	**Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.** covered x 2 optional	**Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.** **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.** covered x 2 optional	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	**Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.** **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.** **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.** covered optional
Creativity	**Creation**	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** covered x 6 optional x 4	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** covered x 8 optional x 4	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** covered x 7 optional x 8	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. covered x 5 optional x 4	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. covered x 3 optional x 9	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. covered x 11 optional x 7
Investigation	**Data and computational thinking**	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs. optional x 2	**Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.** **Create and debug simple programs.** **Use logical reasoning to predict the behaviour of simple programs.** covered x 3 optional x 2	**Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.** covered x 2 optional x 2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	**Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.** **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.** **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.** covered x 2	**Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.** **Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.** **Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.** covered x 3 optional

Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Networks	Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems. `optional` `breadth`	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** **Know how information and data is shared and used online.** `covered`	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Know how information and data is shared and used online. `optional x 3`	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Know how information and data is shared and used online.	**Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.** **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.** **Know that people sometimes behave differently online, including by pretending to be someone they are not.** **Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.** **Know that bullying (including cyberbullying) has a negative and often lasting impact on mental wellbeing.** **Know that for most people the internet is an integral part of life and has many benefits.** **Know that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health.** `covered x 3` `optional x 3`
Materials	**Hardware**	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** `covered x 3` `optional x 6`	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** `covered x 2`	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. `covered x 2`	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. `covered x 2` `optional`	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. `optional`	**Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.** `covered` `optional x 3`
	Software	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. `covered x 4` `optional x 6`	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. `covered x 3` `optional x 7`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** `covered x 5` `optional x 8`	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. `covered x 2` `optional`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** `covered x 5` `optional`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** `covered x 3` `optional x 2`

Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Nature	Real world	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** `covered`	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. `optional x 2`	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. `optional`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** `covered`	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. `optional`
Place	Digital world	Recognise common uses of information technology beyond school. **Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.** **Know that for most people the internet is an integral part of life and has many benefits.** `covered x 2` `optional x 2`	Recognise common uses of information technology beyond school. **Know that for most people the internet is an integral part of life and has many benefits.** **Know about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing.** `covered`	**Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.** **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.** **Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous.** **Know how information and data is shared and used online.** **Know why social media, some computer games and online gaming, for example, are age restricted.** `covered x 3` `optional x 3`	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Know that in school and in wider society they can expect to be treated with respect by others, and that in turn they should show due respect to others, including those in positions of authority. Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous.	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Know how information and data is shared and used online.	**Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.** **Know that the same principles apply to online relationships as to face to face relationships, including the importance of respect for others online including when we are anonymous.** **Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them.** **Know how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private.** **Know why social media, some computer games and online gaming, for example, are age restricted.** `covered x 3` `optional x 3`

Big idea	Aspect	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Real world	**Recognise common uses of information technology beyond school.** **Know that for most people the internet is an integral part of life and has many benefits.** `covered x 3` `optional x 6`	**Recognise common uses of information technology beyond school.** **Know that for most people the internet is an integral part of life and has many benefits.** `covered x 2` `optional`	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Know that for most people the internet is an integral part of life and has many benefits. `optional x 5`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** **Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.** **Know how information and data is shared and used online.** **Know that for most people the internet is an integral part of life and has many benefits.** `covered x 3` `optional x 8`	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. `optional x 4`	**Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.** `covered x 2` `optional x 5`
Comparison	**Digital searching**	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** `covered x 3` `optional x 3`	**Use technology purposefully to create, organise, store, manipulate and retrieve digital content.** `covered x 3` `optional`	**Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.** **Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.** `covered x 2` `optional x 3`	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Know the rules and principles for keeping safe online, how to recognise risks, harmful content and contact, and how to report them. Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted. `optional`	**Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.** **Know how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted.** `covered x 3` `optional x 3`

Cornerstones