



Ambergate Primary School

Achieve, Believe, Create

Written:	June 2020
Review:	June 2021

Computing Progression – Computer Sciences, Information Technology and Digital Literacy

Area	Key Stage 1 Aims	Key Stage 2 Aims
Computer Science (CS)	1. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions 2. Create and debug simple programs 3. Use logical reasoning to predict the behaviour of simple programs	4. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts 5. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output 6. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs 7. Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web 8. Appreciate how [search] results are selected and ranked
Information Technology (IT)	1. Use technology purposefully to create, organise, store, manipulate and retrieve digital content	2. Use search technologies effectively 3. 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

Area	Key Stage 1 Aims	Key Stage 2 Aims
Digital Literacy (DL)	1. Recognise common uses of information technology beyond school 2. 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	3. Understand the opportunities [networks] offer for communication and collaboration 4. Be discerning in evaluating digital content 5. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Progression Statements by Strand

	Class 1 – EYFS and Y1	Class 2 – Y2 and Y3	Class 3 – Y4, Y5 and Y6
Computer Science (CS)	Cycle A: AUTUMN - CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions SPRING - CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - CS2 - Create and debug simple programs - CS3 - Use logical reasoning to predict the behaviour of simple programs	Cycle A: AUTUMN SPRING SUMMER - CS4 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - CS5 - Use sequence, selection, and repetition in programs; work with variables and various forms of input and output - CS6 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Cycle A: AUTUMN - CS4 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts - CS5 - Use sequence, selection, and repetition in programs; work with variables and various forms of input and output - CS6 - Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs SPRING SUMMER

	SUMMER • CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • CS2 - Create and debug simple programs • CS3 - Use logical reasoning to predict the behaviour of simple programs • CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • CS2 - Create and debug simple programs Cycle B: AUTUMN SPRING SUMMER • CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • CS2 - Create and debug simple programs	Cycle B: AUTUMN • CS4 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • CS5 - Use sequence, selection, and repetition in programs; work with variables and various forms of input and output SPRING • CS4 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • CS5 - Use sequence, selection, and repetition in programs; work with variables and various forms of input and output SUMMER • CS1 - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • CS2 - Create and debug simple programs • CS3 - Use logical reasoning to predict the behaviour of simple programs	• CS4 - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Cycle B: AUTUMN • CS8 - Appreciate how [search] results are selected and ranked Cycle C: AUTUMN • CS4 – Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • CS5 – Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. SPRING • CS7 - Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web SUMMER • CS 4 – Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • CS 5 – Use sequence, selection, and repetition in programs; work with variables
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			and various forms of input and output.
Information Technology (IT)	Cycle A: AUTUMN SPRING SUMMER Cycle B: AUTUMN - IT 1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content SPRING - IT 1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content SUMMER - IT 1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Cycle A: AUTUMN - IT1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content SPRING - IT2 - Use search technologies effectively - IT3 - 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 - IT1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content SUMMER - IT1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content Cycle B: AUTUMN - IT3 - 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	Cycle A: AUTUMN - IT 3 – 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. SPRING - IT2 -Use search technologies effectively - IT3 - 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 SUMMER - IT3 - 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 Cycle B: AUTUMN

- IT1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content

SPRING

- IT3 - 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

SUMMER

- IT 1 - Use technology purposefully to create, organise, store, manipulate and retrieve digital content

- IT3 - 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
- IT2 - Use search technologies effectively

SPRING

- IT2 - Use search technologies effectively
- IT3 - 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

SUMMER

- IT2 - Use search technologies effectively
- IT3 - 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

Cycle C:

AUTUMN

- IT3 – 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 • IT2 -Use search technologies effectively SPRING • IT3 - 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 SUMMER • IT 3 – 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.
Digital Literacy (DL)	Cycle A: AUTUMN • DL2 - 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 SPRING	Cycle A: AUTUMN • DL2 - 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 SPRING	Cycle A: AUTUMN • DL5 - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact SPRING • DL5 - Use technology safely, respectfully and responsibly; recognize

	• DL2 - 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 SUMMER Cycle B: AUTUMN • DL2 – 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 • DL1 - Recognise common uses of information technology beyond the school SPRING • DL2 - 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 • DL1 - Recognise common uses of information technology beyond the school SUMMER • DL1 - Recognise common uses of information technology beyond the school	• DL5 - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact SUMMER • DL1 - Recognise common uses of information technology beyond school • DL2 - 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 • DL5 - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Cycle B: AUTUMN • DL2 - 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 SPRING • DL5 - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour;	acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact • DL3 - Understand the opportunities [networks] offer for communication and collaboration SUMMER • DL5 - Use technology safely, respectfully and responsibly; recognize acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact Cycle B: AUTUMN • DL5 - Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact SUMMER • DL3 - Understand the opportunities [networks] offer for communication and collaboration • DL4 - Be discerning in evaluating digital content • DL5 - Use technology safely, respectfully and responsibly; recognize acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact Cycle C: AUTUMN
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Digital Citizenship & Technology (DL) eSafety progression delivered throughout every year

CLASS 1 – EYFS and Y1	CLASS 2 – Y2 and Y3	CLASS 3 – Y4, Y5 and Y6
Digital Citizenship & Technology (DL) eSafety Level 1	Digital Citizenship & Technology (DL) eSafety Level 2	Digital Citizenship & Technology (DL) eSafety Level 3
1.1 eSafety Awareness Raising (Video & Class Discussion)	2.1 eSafety Awareness Raising (Video & Class Discussion)	3.1 eSafety Awareness Raising (Video & Class Discussion)
1.2 Sending emails and messages (Maily)	2.2 Communicating On-line and images, Social Networking	3.2 Communicating On-line and images, Social Networking, Sexting, images and grooming (What are you sharing)
1.3 Introducing on-line life and what it is? Including gaming e.g. Minecraft	2.3 Gaming and collaboration	3.3 Gaming and collaboration
1.4 What is Cyber Bullying?	2.4 Cyber Bullying & Report Abuse	3.4 Cyber Bullying & Report Abuse
1.5 Stranger Danger	2.5 Friend or Foe	3.5 Friend or Foe
	2.6 Copy Right, what is it?	3.6 Copy Right, what is it?
	2.7 Passwords & Security (Virus, downloads, pop ups and scams)	3.7 Passwords & Security (Virus, downloads, pop ups and scams)
		3.8 In App Purchases & Mobiles (iPads, Phones etc)

Model of Computing Curriculum Skills

