Latchford St James Church of England Primary School

Progression of Skills for Computing - Year 1

Year 1	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	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. Recognise common uses of information technology beyond school.	Use logical reasoning to predict the behaviour of simple programs. Create and debug simple programs. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	Using technology purposefully to create, organise, store, manipulate and retrieve digital content.
Skills	I understand I need to keep my information (such as my usernames and passwords) safe and private, and to show this when using a digital device. I know where to go for help if I am worried about something I see on the internet. I know that the internet contains a large amount of information. I can, with support, use a search engine to find information. I know that a computer can represent real situations.	I can make very simple programs. I know what algorithms are. I can debug simple algorithms with support.	I can use technology with support to create and store items such as text and images. I can use a simple search to find files and information. I can use key words to describe objects (font, size, colour). I can use basic editing skills.

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Progression of Skills for Computing - Year 2

Year 2	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	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. Recognise common uses of information technology beyond school.	Use logical reasoning to predict the behaviour of simple programs. Create and debug simple programs. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	Using technology purposefully to create, organise, store, manipulate and retrieve digital content.
Skills	I know where to go for help if I am worried about something I see on the internet. I understand that some content and contact on the internet is unsafe, and I know where to go for help. (Children are beginning to recognise types of unsafe content/contact) I understand the importance of computers and the internet for communication. I know that technology is used in everyday life in lots of different ways. (Children are developing this, and can discuss their ideas)	I can create simple programs independently and develop my strategies to find bugs. I can begin to predict outcomes in my algorithms. I can explain that an algorithm is a set of instructions to complete a task. I can explain what debugging is and find errors in my work. I know that programs will only work by following a precise set of instructions.	I can use technology with purpose, to create, store, organise, retrieve and manipulate digital content. I am beginning to learn how to create digital files such as presentations and graphs. I can navigate around areas of the internet and can carry out simple searches. I am developing an understanding that not everything on the internet is the truth. I can confidently use basic editing skills.

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Progression of Skills for Computing - Year 3

Year 3	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact. 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	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. 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Skills	I can use technology safely and with respect. I have a good understanding how to keep my information and that of others secure. I know it is important to report any worries I have if I see something whilst using the internet and other types of technology.	I can write algorithms and programs using simple sequence and repetition. I can use computational thinking strategies to solve problems and errors in my algorithms and programs. I can identify bugs in my algorithms.	I can use a variety of different computer software and devices to create digital content such as presentations, databases and graphs. I am able to develop my strategies for searching by using key words. I can collect, analyse and present data using a selection of software.

	I know some of the different ways I can report any concerns I have. I am developing an understanding of how to behave in an acceptable way online, and what types of behaviour is unacceptable. I know that a lot of information on the internet should not be trusted. I know I must confirm if something is trustworthy or not before I act.	I can use methods of communication, in particular emails (I can open, respond to and attach files to emails)	I can carry out simple searches independently using search engines, to retrieve digital content.

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Progression of Skills in Computing - Year 4

Year 4	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact. 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	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. 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Skills	I use technology responsibly, safely and with respect. I know how to keep my information secure, including my usernames and passwords. I know many different ways to report any concerns I have about something I experience on the internet and other types of technology.	I can plan and write more complex algorithms and programs using sequence, repetition and selection. I can further develop my computational thinking skills to debug my programs and algorithms. I have a simple understanding how search engines work. I can use inputs and outputs and control external devices such as sensors, motors or robots.	I can use a variety of software with increasing independence. I can create a range of digital content such as programs, databases and presentations. I understand the function, features and layout of a search engine.

	I have a good understanding of how to behave in an acceptable way online, and what behaviour is unacceptable. I am developing strategies to work out if something I experience on the internet is trustworthy. I am developing an awareness of what Copyright is.	I understand the difference between the internet and the World Wide Web. I have a simple understanding of how computer networks work.	

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Progression of Skills for Computing - Year 5

Year 5	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact. 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	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. 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Skills	I use technology safely, responsibly and in a respectful manner. I have good skills to identify types of content and contact on the internet that are risky. I am developing an understanding of what a 'digital footprint' is. I know many different ways to report my concerns about things I see or experience	I can design and write programs using sequence, repetition, selection and variables. I am developing an understanding of how to make more complex programs through the use of selection and repetition. I understand how search engines work.	I can select, use and combine a range of software for to use on different types of technological devices. I can create digital content such as programs, databases, spreadsheets and presentations. I can conduct effective searches using key words and phrases. I can create a simple spreadsheet to investigate real life problems.

	whilst using the internet and other types of technology. I understand what behaviour is acceptable online and is what is unacceptable. I can use strategies to work out if a source or piece of information online is trustworthy. I understand what Copyright is.	I can use my computational thinking skills to plan algorithms, predicting how they might work and then correct any errors. I have a good understanding how a computer network works.	

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Progression of Skills for Computing - Year 6

Year 6	Digital Literacy	Computer Science	Information Technology
National Curriculum Statements	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact. 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	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. 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Skills	I can use different types of technology competently, safely, responsibly and with respect. I can identify risks involved with certain online content and contact. I understand the importance of using a 'strong' password and can create one.	I know how a search engine works and what 'ranking' is. I can design and create more complex programs using sequence, repetition, selection and variables appropriately. I can use computational thinking skills to evaluate my work and correct errors in my algorithms.	I can independently select, use and combine a wide range of software on a variety of different technological devices. I can design and create a range of digital content such as programs, spreadsheets, databases and presentations. I can use advanced searches.

	I know many different ways of reporting any concerns I have about things I see and experience on the internet. I know how to behave in an acceptable way online, and what behaviour is unacceptable. I can use strategies to confirm if a source or piece of information on the internet is trustworthy and accurate. I understand what Copyright is, what plagiarism is and how this links to my work.	I know how different computer networks work, including the roles of components. I understand the benefits of computer networks for communication. I know what the difference is between the internet and internet services.	I can create spreadsheet models to investigate real life problems and make predictions about these based on prior knowledge.