



Berkswich CE - Computing Curriculum Progression Overview

See also Unit Summery Overview for year group progression and the Digital Literacy/Online Safety objective grids

EYFS Framework						
Whilst there are no specific Early Learning Goals for technology, the skills and knowledge acquired through taking part in computing opportunities provide the children with valuable opportunities to flourish in all seven areas of learning. Although there are links to all seven areas of learning, the following areas are which are most pertinent to the children's computing in EYFS: mathematics, physical development and communication, and language and understanding. Exploring technology within the Early Years encourages children to develop their Characteristics of Effective Learning, which is an integral part of the EYFS framework. Children are encouraged to use technology to explore functions, be creative and solve problems. All of these skills are incorporated within the Characteristics of Effective Learning section within the EYFS Framework. Technology provides purposeful contexts for the children to demonstrate their Characteristics of Effective Learning.						
KS1 National Curriculum:			Key Stage Two National Curriculum:			
• 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 • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school • 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.			• 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 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.			
	Computer Systems & Networks	Digital Literacy	Algorithms & Programming	Data & Information	Effective Use, Design & Development of Technology & Tools	Impact of Technology
EYFS	• Experience using a computer to find a useful song. • Recognise that this can be accessed in different ways using different devices.	• <i>See year group breakdown for the coverage and progression in the eight areas of Digital Literacy/Safety.</i> • Tell an adult if something makes you sad or worried.	• Explore how to give instructions. • Understand what happens when instructions are followed. • Relate instructions to actions.	• Sort and categorise loose parts in play. • Explore ways to organise information.	• Demonstrate a confidence to tinker with hardware. • Follow rules when using devices to be responsible users. • Can talk about what they can do with different devices.	• Know that people use computers in their jobs.
Years One and Two	• Understand what a computer is, and how its constituent parts function together as a whole. • Understand how networks can be used to retrieve and share information.	• <i>See year group breakdown for the coverage and progression in the eight areas of Digital Literacy/Safety.</i> • 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. • Are responsible users of information and communication technology.	• Understand what algorithms are • Understand how algorithms are implemented as programs on digital devices. • Understand that programs execute by following precise and unambiguous instructions. • Use logical reasoning to predict the behaviour of simple programs. • Create and debug simple programs.	• Understand what data is and some ways that it is stored, organised and used to represent real-world information.	• Demonstrate being a confident, competent and creative user of information and communication technology. • Demonstrate a brave 'tinkering' approach. • Are responsible and confident users of information and communication technology. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.	• Recognise common uses of information technology beyond school.
Years Three and Four	• Understand what a computer is, and how its constituent parts function together as a whole. • Understand computer networks, including the internet, and how they can provide multiple services, such as the world wide web. • Understand how networks can be used to retrieve and share, and how they come with associated risks. • Use search technologies effectively • Appreciate how results are selected and ranked, and be discerning in evaluating digital content.	• <i>See year group breakdown for the coverage and progression in the eight areas of Digital Literacy/Safety.</i> • Use technology safely, respectfully and responsibly. • Recognise acceptable/unacceptable behaviour. • Identify a range of ways to report concerns about content and contact. • Understand risks when using technology, and how to protect individuals.	• Use logical reasoning to explain how some simple algorithms work. • Design and write programs that accomplish specific goals. • Identify bugs in programs and re-write to correct these. • 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.	• Understand how data is stored, organised and used to represent real-world artefacts and scenarios. • Collect, analyse, evaluate and present data and information.	• Demonstrate being a confident, competent and creative user of information and communication technology. • Demonstrate persistence when debugging or faced with challenges. • 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, • Collect, analyse, evaluate and present information.	• Understand how individuals, systems, and society as a whole interact with computer systems.
Years Five and Six	• Understand what a computer is, and how its constituent parts function together as a whole. • Understand computer networks, including the internet, and how they can provide multiple services, such as the world wide web. • Understand the opportunities that networks offer for communication and collaboration, and how they come with associated risks. • Use search technologies effectively • Appreciate how searches can be impacted, how results are selected and ranked and how these may be affected by bias; be discerning in evaluating digital content.	• <i>See year group breakdown for the coverage and progression in the eight areas of Digital Literacy/Safety.</i> • Use technology safely, respectfully and responsibly. • Recognise acceptable/unacceptable behaviour. • Identify a range of ways to report concerns about content and contact. • Understand risks when using technology, and how to protect individuals and systems.	• Be able to comprehend and evaluate algorithms. • Design, and write programs that accomplish specific goals, including controlling or simulating physical systems. • Detect and correct errors in algorithms and programs. • Create software to allow computers to solve problems. • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	• Understand how data is stored, organised and used to represent real-world artefacts and scenarios. • Collect, analyse, evaluate and present data and information, selecting appropriate ways in which to do this.	• Demonstrate being a confident, competent and creative user of information and communication technology. • Demonstrate appropriate persistence through 'tinkering' or seeking further learning. • 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. • Collect, analyse, evaluate and present information. • Understand the activities involved in planning, creating, and evaluating computing artefacts.	• Understand how individuals, systems, and society as a whole interact with computer systems and begin to understand the impact and implications of these interactions.