

The Fairfield Computer Scientist YR-Y6: Subject Leader Overview

Computer Science
E-Safety
Information Technology
Digital Literacy

Year Group	Standardised Objectives
Year 1	<ul style="list-style-type: none"> • Begin to develop an understanding of algorithms • Begin to understand that programs work by following instructions • Create simple programs and begin to debug them • Develop reasoning to predict the behaviour of simple programs • Begin to recognise common uses of information technology beyond school • Develop an understanding of how to use technology safely • Know where to go for help/support when they have concerns about content/contact on internet • Use technology to create, store and retrieve digital content
Year 2	<ul style="list-style-type: none"> • 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 • Recognise common uses of information technology beyond school • Use technology safely and respectfully, keeping personal information private • Identify where to go for help/support when they have concerns about content/contact on internet/other online technologies • Use technology purposefully to create, store, retrieve, organise and manipulate digital content

Year 3	<ul style="list-style-type: none"> • Start to use reasoning to understand how algorithms work • Detect errors in algorithms and programs • Begin to solve problems by decomposing them into smaller parts • Start to use sequence and selection in programs • Begin to develop understanding of how to write and debug programs that accomplish specific goals • Begin to work with various forms of input/output • Show emerging understanding of computer networks including the internet and how they provide multiple services • Use some search technologies effectively and appreciate how results are ranked • Decide which questions to ask when using search engines • Use technology safely, responsibly and respectfully • Recognise acceptable/unacceptable behaviour • Identify ways to report concerns about content/contact • Use a variety of software on digital devices
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Year 4	<ul style="list-style-type: none"> • Use logical reasoning to understand how algorithms work • Detect and correct errors in algorithms and programs • Begin to solve problems by decomposing them into smaller parts • Start to use sequence, selection and repetition in programs • Write and debug programs that accomplish specific goals • Work with variables and various forms of input/output • Understand computer networks including the internet and how they provide multiple services • Use search technologies effectively and appreciate how results are selected and ranked • Evaluate the reliability of digital content • Begin to ask and answer questions based on the reliability of digital content • Recognise acceptable/unacceptable behaviour and identify ways to report concerns about content/contact • Select and use a variety of software on digital devices
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Year 5	<ul style="list-style-type: none"> • Use logical reasoning to understand how algorithms work and detect and correct errors in algorithms and programs • Solve problems by decomposing them into smaller parts • Use sequence, selection and repetition in programs • Write and debug programs that accomplish specific goals • Accurately manipulate variables and various forms of input/output • Use a wide range of search technologies effectively and appreciate how results are selected and ranked • Be discerning in evaluating the reliability of digital content • Recognise the opportunities computer networks offer for communication and collaboration • Confidently, competently and responsibly use information and communication technology • Express own ideas by selecting, using and combining a variety of software on digital devices to design and create programs
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Year 6	<ul style="list-style-type: none"> • 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 accurately in programs • Accurately manipulate a wide range of variables and various forms of input/output • Securely use logical reasoning to understand how algorithms work and detect and correct errors in algorithms and programs • Appreciate how results are selected and ranked and use this to retrieve accurate content • Be discerning in evaluating the reliability of digital content • Use the opportunities computer networks offer for communication and collaboration • Confidently, competently and responsibly use information and communication technology • Express own ideas by selecting, using and combining a variety of software on a range of digital devices and create programs
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