



Moorpark Computing Curriculum

What are we covering?

Computing Systems and Networks

recognise common uses of information technology beyond school

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

Searching

Creating media

use technology purposefully to create, organise, store, manipulate and retrieve 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

Creating media

use technology purposefully to create, organise, store, manipulate and retrieve 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

Data and Information

use technology purposefully to organise and store digital content

select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Programming

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

Programming

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

Online Safety
Effective Use of Tools
Impact of Technology



Moorpark Computing Curriculum

National Curriculum KS2

Pupils should be taught to:

Programming

- 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

Computing Systems

- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Data and Information

- 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

Creating media

- 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



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Computing Curriculum Overview 2021 - 2022

	Spring 1 (1 year group unit trial)	Spring 2	Summer 1	Summer 2
Year 3		<p>Connecting Computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>Sequencing Sounds Creating sequences in a block-based programming language to make music.</p>	<p>Stop Frame Animation Capturing and editing digital still images to produce a stop-frame animation that tells a story</p>
Year 4		<p>The Internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>	<p>Repetition in Shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.</p>	<p>Photo Editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p>
Year 5	<p>Sharing Information Identifying and exploring how information is shared between digital systems.</p>	<p>Video editing Planning, capturing, and editing video to produce a short film.</p>	<p>Selection in Physical Computing Exploring conditions and selection using a programmable microcontroller.</p>	<p>Flat file Databases Using a database to order data and create charts to answer questions.</p>
Year 6		<p>Internet Communication Recognising how the WWW can be used to communicate and be searched to find information.</p>	<p>Variables in Games Exploring variables when designing and coding a game.</p>	<p>3D Modelling Planning, developing, and evaluating 3D computer models of physical objects.</p>



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Computing Curriculum Overview 2022 - 2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	<p>Connecting Computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.</p>	<p>Stop Frame Animation Capturing and editing digital still images to produce a stop-frame animation that tells a story</p>	<p>Sequencing Sounds Creating sequences in a block-based programming language to make music.</p>	<p>Branching Databases Building and using branching databases to group objects using yes/no questions.</p>	<p>Desktop Publishing Creating documents by modifying text, images, and page layouts for a specified purpose.</p>	<p>Events and Action in Programs Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>
Year 4	<p>The Internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.</p>	<p>Audio Editing Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>	<p>Repetition in Shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.</p>	<p>Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.</p>	<p>Photo Editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.</p>	<p>Repetition in Games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.</p>
Year 5	<p>Sharing Information Identifying and exploring how information is shared between digital systems.</p>	<p>Video editing Planning, capturing, and editing video to produce a short film.</p>	<p>Selection in Physical Computing Exploring conditions and selection using a programmable microcontroller.</p>	<p>Flat file Databases Using a database to order data and create charts to answer questions.</p>	<p>Vector Drawing Creating images in a drawing program by using layers and groups of objects.</p>	<p>Selection in Quizzes Exploring selection in programming to design and code an interactive quiz.</p>
Year 6	<p>Internet Communication Recognising how the WWW can be used to communicate and be searched to find information.</p>	<p>Web Page Creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.</p>	<p>Variables in Games Exploring variables when designing and coding a game.</p>	<p>Introduction to Spreadsheets Answering questions by using spreadsheets to organise and calculate data.</p>	<p>3D Modelling Planning, developing, and evaluating 3D computer models of physical objects.</p>	<p>Sensing Designing and coding a project that captures inputs from a physical device.</p>