



## 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



## Moorpark Computing Curriculum

### Computing Curriculum Overview 2021 - 2022

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



## Moorpark Computing Curriculum

### Computing Curriculum Overview 2022 - 2023

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