

Computing policy

MELBOURNE JUNIOR SCHOOL

March 2025



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Introduction

This policy sets out our school's vision, aims, principles and strategies for the delivery of Computing and the use of technology to support the curriculum at Melbourne Junior School. It has been developed by the Computing co-ordinator through consultation with the head teacher, teaching staff and school governors.

What is Computing? - The National Curriculum

The National Curriculum Purpose of Study states that:

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Whilst the Computing Curriculum has an increased focus on Computer Science including developing pupils' programming skills and their understanding of what happens 'behind the scenes', it is important that they also continue to develop their Digital Literacy and e-safety capability and our school curriculum is designed to reflect this.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Melbourne Junior School's Computing Curriculum - Intent and Implementation

Intent

In Computing at Melbourne Junior School, our intent is to help all pupils become independent, creative, and respectful digital citizens who are able to solve problems with a broad and transferrable skillset. Online safety is embedded within the curriculum to make the safety of pupils an integral part of everything we do in Computing, helping to

support safeguarding in our school. We aim to make computing fun for pupils, inspiring them to develop skills beyond the classroom and building an awareness of all the opportunities the subject provides so that our children are prepared for the ever-growing technological world in which we live.

Implementation

At Melbourne Junior School, our Computing curriculum has been designed to be progressive, building upon the skills and knowledge developed in Key Stage 1 and preparing them for further development in Key Stage 3. Our curriculum ensures our pupils learn computing skills from the three recognised aspects of computing within each year of their primary education.

The three aspects are:

- **Computer Science** – this covers programming (both block-based and text-based), including computational thinking using web-based software such as Scratch. Pupils across Key Stage 1 and 2 will write code to program physical and on-screen objects, interactive games and use text-based language, such as HTML and Python by the end of Key Stage 2.
- **Information Technology** – this covers the use of applications to create digital content, including document creation and editing, video making, digital art, graphic design, animation, 3D modelling and website building.
- **Digital Literacy** – covers skills to find, evaluate, utilise and share using technologies and the Internet. This includes important e-safety and internet research skills, as well as an understanding of computer networks in Key Stage 2.

Our pupils will access the different aspects of computing through the use of the Kapow Primary Computing scheme and resources, which apply the knowledge and skills from the National Curriculum, and shall be supplemented by the Project Evolve E:Safety materials, as necessary. As such, pupils can learn computing skills at their own pace, developing independent learning skills with opportunities to continually review and revisit the skills covered. In addition, our children will explore a variety of physical programming devices, such as Code-and-Go Mice and Micro:Bits. Consequently, pupils will utilise a range of software and hardware, primarily laptops, building upon skills and concepts they established from the previous year and developing them further in the current and subsequent years.



Melbourne Junior School's Computing Curriculum: Overview

As a school, we embrace the national vision for Computing and appreciate that, to achieve this, pupils must have access to a curriculum which is 'balanced and broadly based'. Our Computing curriculum ensures our pupils learn skills from the three recognised aspects of computing – Digital Literacy, Information Technology and Computer Science - within each year of their primary education.

Term	Strand	Year 3	Year 4	Year 5	Year 6
Autumn (15 Weeks)	Digital Literacy	<ul style="list-style-type: none"> • Introduction to Computers – Art Covers (3 Lessons) • Computer Systems and Networks (5 Lessons) 	<ul style="list-style-type: none"> • Collaborative Learning (5 Lessons) 	<ul style="list-style-type: none"> • Search Engines (5 Lessons) 	<ul style="list-style-type: none"> • Bletchley Park & History of Computing (5 Lessons)
	Online Safety	<ul style="list-style-type: none"> • Online Safety: Beliefs, opinions and facts on the internet (1 Lesson) 	<ul style="list-style-type: none"> • Online Safety: How do companies encourage us to buy online? (1 Lesson) 	<ul style="list-style-type: none"> • Online Safety: Online Protection (1 Lesson) 	<ul style="list-style-type: none"> • Online Safety: Life Online (1 Lesson)
Spring (12 Weeks)	Information Technology	<ul style="list-style-type: none"> • Video Trailers: Using I-Pads (5 Lessons) 	<ul style="list-style-type: none"> • Website Design: Office 365 (5 Lessons) 	<ul style="list-style-type: none"> • Stop-Motion Animation (5 Lessons) 	<ul style="list-style-type: none"> • Artificial Intelligence (5 Lessons)
	Online Safety	<ul style="list-style-type: none"> • Online Safety: Who Should I Ask? & When Being Online Makes Me Upset (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: How do companies encourage us to buy online? & Fact, Opinion or Belief? (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: Online Communication & Online Reputation (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: Sharing Online & Creating a Positive Online Reputation (2 Lessons)
Summer (13 Weeks)	Computer Science	<ul style="list-style-type: none"> • Programming in Scratch (5 Lessons) • <i>Optional:</i> Programming Physical Devices – Code & Go: Robot Mouse (4 Lessons) 	<ul style="list-style-type: none"> • Further Coding in Scratch (5 Lessons) 	<ul style="list-style-type: none"> • Micro:Bits (5 Lessons) 	<ul style="list-style-type: none"> • Introduction to Python (5 Lessons)
	Online Safety	<ul style="list-style-type: none"> • Online Safety: Sharing Information & Rules of Social Media Platforms (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: What is a bot? & What is my #tech timetable like? (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: Online Bullying & Online Health (2 Lessons) 	<ul style="list-style-type: none"> • Online Safety: Capturing Evidence & Password Protection (2 Lessons)
Computing Lessons (Out of 40 Weeks)		24 Lessons	20 Lessons	20 Lessons	20 Lessons

[Melbourne Junior School Computing Overview 2024-2025](#)

Melbourne Junior School's Computing Curriculum: Teaching and Learning Approaches

When delivering the National Curriculum for Computing, teachers are expected to employ a range of strategies and to use their professional judgement to decide on the most appropriate teaching and learning approach for the class, groups of pupils or individual pupils.

Approaches and strategies used may include:

- an 'unplugged' approach in order to develop their understanding of some of the underlying concepts of Computer Science
- 'plugged' activities which allow pupils to practise and demonstrate their levels of understanding.
- using presentation technology to demonstrate something to a group of pupils or the whole class
- leading a group or class discussion about the benefits and risks of technology
- individual or paired work
- collaborative group work
- pupil led demonstrations / peer mentoring. *NB - Where one pupil is used to demonstrate or teach a skill to others, the teacher must feel confident that this is of benefit to all those involved.*
- differentiated activities planned to allow different levels of achievement by pupils or to incorporate possibilities for extension work.
- teacher intervention where appropriate to support a pupil, reinforce an idea, teach a new point or challenge pupils' thinking.

Access and Inclusion

Each pupil's access to technology varies greatly dependent on the nature of the activity they are involved in (e.g. some activities benefit from prolonged access to a computer whilst other are best served with brief access to a digital device for a focussed purpose). However, on average, pupils have [time allocation] allocated to Computing each week / half term / term using a mixture of unplugged activities and the following technology:

- Laptops
- iPads
- Programming equipment, including:
 - Code-and-Go Mouse
 - Micro:Bits

In addition to discrete Computing sessions, opportunities to develop and extend Computing capability are provided in other curriculum areas and technology is used to support most other subject areas.

All children have equality of access to appropriate technology in order to develop their personal Computing capability. When children are working in groups, we endeavour to ensure that their hands-on experience is equitable. We check resources, software and documentation to ensure that gender and ethnicity are reflected in a balanced way without stereotyping.

The SEND lead and Computing Subject Leader jointly advise teachers on examples of technology or find solutions which can be provided to support individual children with particular physical, linguistic and educational needs. Where appropriate, an external specialist is used to assess a child's specific needs.

Children with access to technology at home are encouraged to use it for educational benefit and online safety guidance is offered to both pupils and parents where appropriate. The school has identified those pupils who have limited or no access to appropriate technology outside of school and provide additional opportunities for these pupils to gain access during the school day / after school.

Online Safety: Safeguarding Children

At Melbourne Junior School we believe that the use of technology in schools brings great benefits. To live, learn and work successfully in an increasingly complex and information-rich society, our children must be able to use technology effectively. The use of these exciting and innovative technology tools in school and at home has been shown to raise educational standards and promote pupil achievement. Yet, at the same time, we recognise that the use of these technologies can put young people at risk within and outside the school.

We place paramount importance on the safety of our children at Melbourne Junior School and, as such, children are taught about how to use technology safely through online safety lessons, using the Kapow online safety resources and, where necessary, supplemented with the Project Evolve E:Safety materials; this includes the use of the internet, tablets, mobile phones and other devices and applications. All staff are made aware of the issues surrounding social networking sites and will explore these issues, in an age-appropriate manner with their pupils during PSHE sessions and if a need should arise.

At the start of each academic year, all children, adults and parents sign a copy of an acceptable use statement, and the children should be reminded of the content of this by the class teacher at appropriate times.

The school has developed a separate policy which details our approach to online safety and safeguarding children and staff when using technology both within and beyond the school. This policy has been developed according to guidance provided by the Education

People -www.theeducationpeople.org, Online Safety Education Advisor and www.kesi.org.uk. This includes reference to the online safety elements of the National Curriculum for Computing and the statutory Relationships and Health Education curriculum. It takes into account the government's '[Teaching online safety in schools](#)' guidance and '[Education for a Connected World](#)' from the UK Council for Internet Safety.

Monitoring

The Computing Subject Leader follows a programme of evaluation and monitoring of the Computing curriculum, across the school. This is so that he can monitor the quality of education being provided to all pupils, including:

- Checking that the school's curriculum 'Implementation' matches its 'Intent'
- Evaluating the success (or otherwise) of curriculum planning and delivery
- Having an awareness of impact and be able to demonstrate progression and attainment
- Having an overview of resource and staff training needs.

Monitoring is completed via a variety of methods including:

- Observations
- Collecting and analysing planning
- Pupil interviews / pupils voice
- Staff interviews / feedback

As a result of monitoring, appropriate CPD opportunities are provided for staff in line with the school's wider CPD policy, School Development Plan and Strategic Technology Development Plan.

Assessment

The assessment of the Computing curriculum is under review at present. This section of the policy shall be updated upon the implementation of the new assessment strategies. How Computing is assessed will be in accordance with the advice provided by the [Cambridgeshire Progression in Computing Capability Materials](#) and shall seek to ensure:

- appropriate 'Assessment for Learning' approaches are applied to formative assessment in order to inform future planning
- pupils' achievement and attainment is assessed and recorded on an annual basis

Policy Review

The Computing co-ordinator should update the Computing policy at least bi-annually to allow Melbourne Junior School to keep abreast of new technologies and developments in Computing.