Olive School

Computing Curriculum

At The Olive School, Hackney, our Computing curriculum equips pupils with the knowledge, skills and understanding they need to thrive in the digital world of today and the future, through computer science, information technology and digital literacy.

In doing so, our children will be fully prepared for their next stage of education and equipped with these skills and knowledge for the rest of their lives. Computing is an increasingly significant part of both professional and personal daily life and we believe that our children should be at the forefront of new technology, with a thirst for digital learning. We will deliver a knowledge-rich curriculum that:

- Systematically develops an understanding of programming, including algorithms.
- Teaches children how computer systems, devices and the internet works.
- Ensures a sequential and structured focus on all important aspects of online safety.
- Provides broad and deep experiences of a range of software applications and applies them across the curriculum.

In Key Stage 1, children are practically introduced to the fundamentals of algorithms, take a first journey through the world of IT and begin to develop the skills to use MS Word. Themes are broadened and developed throughout Key Stage 2. The four essential programming strands of *sequencing*, *repetition*, *selection* and *variables* are developed so that children can design and debug their own programs. Children also learn about computer networks, as well as broadening their mastery of common computer applications, to ensure readiness for secondary school.

We ensure that this learning is undertaken in unison with a systematic development of all aspects of online safety because at The Olive School, Small Heath, we want to ensure that our children are fully equipped to negotiate the ever-changing digital world, both safely and responsibly. Here, we focus on themes such as privacy, online bullying and healthy relationships, developing and revisiting important aspects of online safety throughout the years, as per the computing progression map below.

Our knowledge-rich Computing curriculum is taught according to the following whole school long term plan for computing:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Long Term Planning: Half Termly Units						
Autumn 1	Technology around Us [DL]	Using the Internet (Tw)	Desktop Publishing [IT]	Photo Editing [IT]	Creating and Presenting [IT] (e.g. Animotica)	Spreadsheets [IT]
Online safety Focus	*Health, Wellbeing and Lifestyle* *What can we do if we see something online, we don't like?*	*SMART rules* *What rules should we follow to keep safe online?*	*SMART rules* *How can we keep ourselves safe online?*	*SMART rules* *Who can we talk to if we are worried?*	*SMART rules* *How can we use the SMART rules to help people with online safety problems?*	*SMART rules* *What advice can we give to help others online?*
Autumn 2	Digital Painting [IT]	Digital Music [IT]	Connecting computers [DL]	Statistics [IT]	3D Modelling [IT]	Presenting [IT]
Online safety Focus	*Online Bullying* *How can we be safe and respectful online?*	*Online Bullying* *How should we respond to someone being unkind online?*	*Self-image and Identity* *How do people represent themselves online?*	*Self-image and Identity* *How can people change their identity online?*	*Self-image and Identity* *How easy is it to change information online?*	*Self-image and Identity* What is gender stereotyping and where is it found?
Spring 1	Grouping Data [IT]	Pictograms [IT]	Online Polling [IT] (e.g. Poll Maker)	Word Processing [IT/DL] (e.g Word)	Systems and Searching [DL]	Publishing/Word Processing [IT] (e.g. Publisher/Word)
Online safety Focus	*Privacy and Security* *What is personal information?* *Copyright and Ownership* *Is it fair to take someone else's work?*	*Online Relationships* *Who is in our online community?*	*Online Relationships* *How can we be a good digital citizen?*	*Online Relationships* *How can we show respect online?*	*Online Relationships* *How can people cause harm online?*	*Online Relationships* *Online Reputation* *What can I do to look after my friends online?*
Spring 2	Basic algorithms [CS] (practical)	Basic algorithms [CS] (practical)	Stop frame animation [IT]	The Internet [DL]	Programming – Games [CS]	Sensing Movement [CS]
Online safety Focus	*Online Reputation* *Would we share this information online?*	*Online Reputation* *Can people hide their identity online?*	*Online Reputation* *How can we communicate kindness online?*	*Online Reputation* *How can we keep games fun and friendly?*	*Online Bullying* *How can we stop online bullying?* *Managing Online Information* *Is everything online true?*	*Online Bullying* *How can I collect evidence of online bullying to tell someone?*
Summer 1	Moving a Robot [CS]	Programming Animations [CS]	Programming – Sounds [CS]	Repetition in Shapes [CS]	Selection in Quizzing [CS]	Variables in games [CS]
Online safety Focus	*Managing Online information* What should we do if we are worried about being online?	*Privacy and Security* *How can we keep our information safe?*	*Managing Online Information* *What is the difference between facts, opinions and beliefs?*	*Health, Well-being and Lifestyle* Can technology be negative?	*Health, Wellbeing and Lifestyle* What is clickbait and how can we avoid it?	*Phishing* *What is phishing and why does it exist?*
Summer 2	Creating Digital Writing [IT]	Computer systems [DL]	Programming – Events and Actions [CS]	Programming – Repetition in Games [CS]	Introduction to Vector Graphics [IT]	Computer Systems and Networks – Communication and Collaboration [DL]
Online safety Focus	*Online Relationships* *What should we do if someone makes us feel sad online?*	*Copyright and Ownership* *Can we copy and paste other people's work?*	*Privacy and Security* *What makes a strong password?*	*Privacy and Security* *Why should we not share private information online?*	*Copyright and Ownership –* *What is plagiarism?*	*Copyright and Ownership* *What makes a strong password and why is security important?*

The three main strands in the National Curriculum for Computing are computer science, information technology and digital literacy. These are carefully mapped out in our computing progression map, accessible below.

Our children are given motivating and inspiring cross-curricular opportunities and special experiences to embed essential learning. This enrichment is an essential element of our computing curriculum offer. For example:

- Visits from the local community police to support cyber awareness.
- Digital artwork to explore influential artists.
- Coding Clubs (Star Futures)

Related documentation:

- Computing Curriculum Plan
- Computing Learning Journey