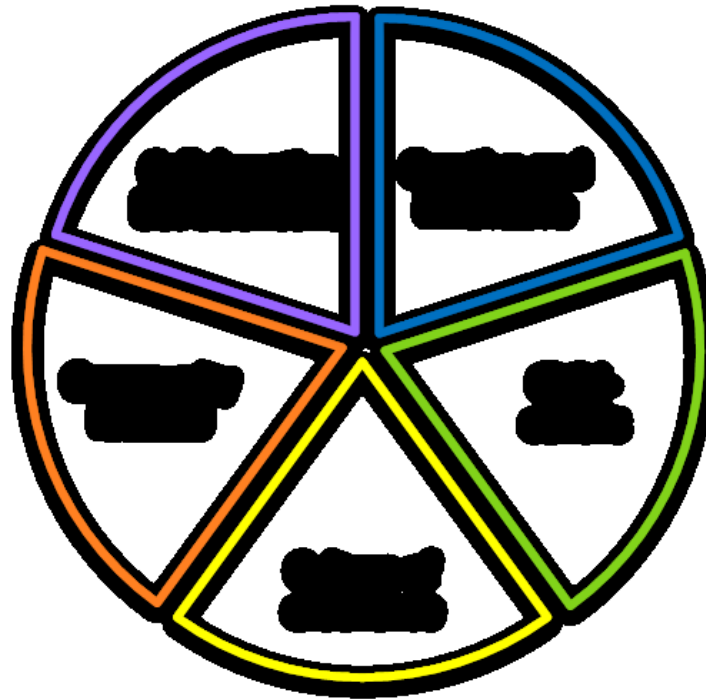


Computing

Our TRUST Curriculum Principles

A Kaleidoscope Schools curriculum has been designed to enable children to develop wide knowledge/ skills and become well rounded and confident individuals who are curious and want to learn. Schools design and develop their own curriculums but encapsulate the following which are linked to the Kaleidoscope 5C's.



Intent

Crockerne's Computing Curriculum aims to equip pupils with the skills and knowledge to thrive in an increasingly digital world. We strive to foster computational thinking and creativity, enabling students to understand and change the world around them. Our curriculum is designed to:

- **Develop Fundamental Principles:** Ensure pupils understand and apply the core concepts of computer science, including abstraction, logic, algorithms, and data representation.
- **Enhance Problem-Solving Skills:** Encourage pupils to analyse problems in computational terms and gain practical experience in writing computer programs to solve these problems.
- **Promote Digital Literacy:** Equip pupils to use information technology effectively, creatively, and responsibly, preparing them for the future workplace and active participation in a digital society.
- **Ensure Safe and Respectful Use:** Teach pupils to use technology safely and respectfully, understanding the importance of keeping personal information private and knowing where to seek help for online concerns.

By the end of each key stage, pupils will be confident, competent, and creative users of information and communication technology, ready to tackle the challenges of the digital age

Implementation

Computing is taught as a discrete subject in all year groups using a range of software and hardware. We follow the Nation curriculum, which is delivered through the Project Evolve E-Safety programme and the Teach Computing curriculum, both of which use a cyclical approach so pupils revisit and build on prior knowledge each year. Computing skills are also applied across the curriculum, for example in data handling, research, and video production. Tools such as Clicker help our SEND pupils access learning more effectively. Using Kaleidoscope's pedagogical approach, children revisit, deepen, and master key digital skills, becoming confident, responsible users of technology. Computing is taught in half-termly blocks and all work is recorded digitally on Padlet or within a shared student drive.



Impact

End of unit assessments are available for teachers should more detailed assessment be needed. At the end of each year teachers make a judgement based on the KMAT milestones which is shared with parents. We then collate whole school assessment data (from annual pupil reports) which shows the achievements of each stage in terms of working towards, at or above expectations. Three times a year subject leaders have the opportunity to observe books throughout the school. For computing the subject leader will look at a selection of children's work online.

Computing National Curriculum Milestones (Trust Milestones)

Key Theme	Reception	KS1 (Y1–Y2)	KS2 (Y3–Y4)	KS2 (Y5–Y6)
Computer Science: Programming		<p>To understand and implement algorithms to execute instructions</p> <p>To create and debug simple programs, using logical reasoning to predict their behaviour</p>	<p>To design, write and debug programs, using logical reasoning to explain how algorithms work</p> <p>Controlling or simulating physical systems</p> <p>To explore sequencing, repetition and loops in programs</p>	<p>To design, write and debug programs, using logical reasoning to explain how algorithms work</p> <p>Controlling or simulating physical systems</p> <p>To explore selection and variables</p>
Digital Literacy: Being an effective and safe user of computing systems		<p>Use technology safely and respectfully: keep personal information private and know where to go for help about content and contact</p> <p>Use technology with a purpose: create, organise, store, manipulate and retrieve digital content: Photography & word processing</p>	<p>Use technology safely, respectfully and responsibly: recognise unacceptable behaviour and how to report concerns about content and contact</p> <p>Use software to purposefully create content: Word and PowerPoint</p>	<p>Use technology safely, respectfully and responsibly: recognise unacceptable behaviour and how to report concerns about content and contact</p> <p>Use software to purposefully create content: Excel, Word and PowerPoint</p>
Information Technology: Practice and Application		<p>Recognise uses of IT inside and outside of school: How technology and IT benefit our lives</p>	<p>Understanding computer networks: How computers connect through input, process and outputs and the internet as a network of networks known as the WWW</p>	<p>Understanding computer networks: Using search technologies and understanding how data is transferred</p>

Overview 25/26

		Autumn	Spring	Summer
Years 1 and 2	E-Safety Project Evolve	Online Relationships	Online Bullying	Managing online information (Y1)
	Cycle A 25 – 26 / 27-28	Computing systems and networks – Technology Around Us <u>Technology around us (Y1)</u>	Programming and Algorithms (P&A): Implementing Algorithms- Programming B Programming Animations <u>Programming animations (Y1) Scratch jr</u>	Programming and Algorithms (P&A): Create a simple program – Moving a Robot <u>Moving a robot (Y1)</u>
	E-Safety Project Evolve	Online Reputation	Privacy and security	Managing online information (Y2)
	Cycle B 26-27 / 28-29	Computing Systems and Networks (S&N) – IT around us <u>Information and technology around us(Y2)</u>	Programming and Algorithms (P&A): Predicting and executing instructions - Programming B Programming Quizzes <u>Programming Quizzes (Y2) Scratch Jr</u>	Creating Media (CM) - Digital Photography <u>Digital Photography (Y2)</u>
Years 3 and 4	E-Safety Project Evolve	Self-image and identity	Online Bullying	Privacy and security
	Cycle A 25 – 26 / 27-28	Computing systems and networks (S&N) - Connecting computers <u>Connecting computers (Y3)</u>	Programming and Algorithms (P&A): Sequencing Programming B - Programming Events and Actions in Programs <u>Events and actions in programming (Y3) Scratch</u>	Data and Information (D&I) - Branching Databases <u>Branching databases (Y3) J2 Data</u>
	E-Safety Project Evolve	Online Relationships	Copyright and ownership	Managing online information
	Cycle B 26-27 / 28-29	Computing systems and networks (S&N) - The Internet <u>The internet (Y4)</u>	Programming and Algorithms (P&A): Repetition & Loops Programming A- in Shapes <u>Repetition in shapes (Y4) Logo</u>	Creating Media - Audio production <u>Audio production (Y4)</u>
Years 5 and 6	E-Safety Project Evolve	Self-image and identity	Online Bullying	Privacy and security
	Cycle A 25 – 26 / 27-28	Computing systems and networks (S&N) - Systems and Searching <u>Systems and searching (Y5)</u>	Programming and Algorithms (P&A): Selection - Programming B - Selection in quizzes <u>Selection in quizzes (Y5) Scratch</u>	Creating Media - Video Production <u>Video production (Y5)</u>
	E-Safety Project Evolve	Online Relationships	Copyright and ownership	Managing online information
	Cycle B 26-27 / 28-29	Computing systems and networks (S&N) – Communication & Collaboration <u>Communication & Collaboration (Y6)</u>	Programming and Algorithms (P&A): Variables - Variables in Games <u>Variables in games (Y6) Scratch</u>	Creating Media (CM) - 3D Modelling <u>3D modelling (Y6)</u>



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