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

Becket and Hutton'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

Impact

Assessment sheets

Computing National Curriculum Milestones (Trust Milestones)

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

KALEIDOSCOPE
Multi Academy Trust

Overview 25/26

	Autumn	Spring	Summer
Reception	Taking a photo Type your name on typewriters or laptops? Barefoot Computing resource packs	Digiduck 5 stories with PDF of activities	Teach in YR: Programming and Algorithms (P&A): **Create a simple program** – Moving a Robot
Year 1	Computing systems and networks – Technology Around Us Technology around us (Y1)	Computing Team to merge both of the following units and teach every year in composite classes. Teachers to ensure the quiz output is different each year, but the skills are repeated. Programming and Algorithms (P&A): **Implementing Algorithms**- Programming B Programming Animations Programming animations (Y1) Scratch Jr	Programming and Algorithms (P&A): **Create a simple program** – Moving a Robot Moving a robot (Y1) **25/26 change:** Link this unit to an instruction writing unit on how to use Beebots that can be published as a word document.
Year 2	Computing Systems and Networks (S&N) – IT around us Information and technology around us (Y2)	Programming and Algorithms (P&A): **Predicting and executing instructions** - Programming B Programming Quizzes Programming Quizzes (Y2) Scratch Jr	Creating Media (CM) - Digital Photography Digital Photography (Y2)
Year 1/2 A	Computing systems and networks – Technology Around Us Technology around us (Y1)	Computing Team to merge both of the following units and teach every year in composite classes. Teachers to ensure the quiz output is different each year, but the skills are repeated. Programming and Algorithms (P&A): **Implementing Algorithms**-	Programming and Algorithms (P&A): **Create a simple program** – Moving a Robot Moving a robot (Y1) **25/26 change:** Link this unit to an instruction writing unit on how to use Beebots that can be published as a word document.

Year 1/2 B	Computing Systems and Networks (S&N) – IT around us Information and technology around us (Y2)	Programming B Programming Animations Programming animations (Y1) Scratch Jr Programming and Algorithms (P&A): **Predicting and executing instructions** - Programming B Programming Quizzes Programming Quizzes (Y2) Scratch Jr	Creating Media (CM) - Digital Photography Digital Photography (Y2)
Year 3	Computing systems and networks (S&N) - Connecting computers Connecting computers (Y3)	Programming and Algorithms (P&A): **Sequencing** Programming B - Programming Events and Actions in Programs Events and actions in programming (Y3) Scratch	Data and Information (D&I) - Branching Databases Branching databases (Y3) J2 Data & Computing Lead Micro:Bit Day
Year 4	Computing systems and networks (S&N) - The Internet The internet (Y4)	Programming and Algorithms (P&A): **Repetition & Loops** Programming A- in Shapes Repetition in shapes (Y4) Logo	Creating Media - Audio production Audio production (Y4) **25/26 change:** & Computing Lead Micro:Bit Day or replace audio with Micro:bits unit
Year 3/4 A	Computing systems and networks (S&N) - Connecting computers Connecting computers (Y3)	Programming and Algorithms (P&A): **Sequencing** Programming B - Programming Events and Actions in Programs Events and actions in programming (Y3) Scratch	Data and Information (D&I) - Branching Databases Branching databases (Y3) J2 Data
Year 3/4 B	Computing systems and networks (S&N) - The Internet The internet (Y4)	Programming and Algorithms (P&A): **Repetition & Loops** Programming A- in Shapes Repetition in shapes (Y4) Logo	Creating Media - Audio production Audio production (Y4)
Year 5	Computing systems and networks (S&N) - Systems and Searching Systems and searching (Y5)	Programming and Algorithms (P&A): **Selection** - Programming B - Selection in quizzes Selection in quizzes (Y5) Scratch	Creating Media - Video Production Video production (Y5) **25/26 change:** & Computing Lead Micro:Bit Day or replace audio with Micro:bits unit
Year 6	Communication and Collaboration Communication & Collaboration (Y6)	Variables in Games Variables in games (Y6) Scratch	Creating Media - webpage creation Webpage creation (Y6)
Year 5/6	Computing systems and networks (S&N) - Systems and Searching	Programming and Algorithms (P&A): **Selection** -	Creating Media - Video Production Video production (Y5)

A	Systems and searching (Y5)	Programming B - Selection in quizzes Selection in quizzes (Y5) Scratch	
Year 5/6 B	– Communication & Collaboration Communication & Collaboration (Y6)	(P&A): **Variables** - Variables in Games Variables in games (Y6) Scratch	Creating Media (CM) - 3D Modelling 3D modelling (Y6)