Curriculum Overview
Computing 2022-23

HENRY HINDE JUNIOR SCHOOL

	Year 3	Year 4	Year 5	Year 6
Autumn 1	Logging On	Create a presentation	Using software to create, store and edit work.	How can information be shared on the internet?
Autumn 2	E-safety	E-safety	E-safety	E-Safety
Spring 1	Algorithms and Pro-Bots	Scratch	Word Processing	Flat file databases
Spring 2	Word Processing	Scratch	Scratch	Scratch
Summer 1	Hardware vs Software	Accessing the Internet	Communication and collaboration networks.	Word Processing
Summer 2	Scratch	Presenting Information	Presenting Information	Networks and the Internet

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Purpose of Study	Subject Content
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.	Pupils should be taught to: • 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 • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • 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 • 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.

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Term	Year 3	Year 4	Year 5	Year 6
Autumn 1	<u>Information Technology</u> • Use 'dance mat' to practise keyboard skills. • What are apps? • Complete given activity using keyboard skills and hand it in on Google Classroom.	<u>Word Processing</u> • Use the internet to research Romans, Vikings and Anglo Saxons. • Use a word processing app to compile research using both pictures and animations. • Present information in their 'Dragons Den' exhibition.	<u>Information Technology</u> • Chromebook expectations, • Functions of a Chromebook (gestures on touchpad, shortcut keys & other buttons) • My Drive & Storage • Create, store and edit a piece of work related to a project.	<u>Digital Literacy and Computer Science.</u> • Creating user profiles and passwords safely • Understand & use Sharing function through G Suite • Online Safety reminder CEOP & SMART rules • How else is information shared online?
Autumn 2	<u>E-Safety</u> • How can we be safe online? SMART rules - what are they, how can we be sure to follow them? • Who can you talk to if something concerns you online? • Focus on Instagram as an app - what steps	<u>E-Safety</u> • How can we be safe online? SMART rules - what are they, how can we be sure to follow them? • Who can you talk to if something concerns you online? • Focus on TikTok as an app - what steps can be taken to be safe here? How can	<u>E-Safety</u> • How can we be safe online? SMART rules - what are they, how can we be sure to follow them? • Consequences of not following online safety rules • Focus on Whatsapp as an app - what steps can be taken to be safe here? How can we apply	<u>E-Safety</u> • How can we be safe online? • SMART rules - what are they, how can we be sure to follow them? • Consequences of not following online safety rules • Focus on differing chat rooms - what steps can be taken to be safe here? How can we apply

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	can be taken to be safe here? How can we apply it to other apps being used.? • Create an e-safety story book using 'Book Creator.'	we apply it to other apps being used.? • Create an e-safety story book using 'Book Creator.'	it to other apps being used.? • Create an e-safety story book using 'Book Creator.'	it to other apps being used/chat rooms being used. • Create an e-safety story book using 'Book Creator.
Spring 1	<u>Algorithms and Pro-Bots</u> • What is an algorithm? • Create an effective algorithm using shapes • Debug an algorithm using shapes • Program pro-bots to create own shapes	<u>Scratch</u> • Recap algorithm knowledge • What codes are used to create a storyboard on scratch • Debug an algorithm for me • Create own storyboard	<u>Word Processing</u> • Design a flyer on paper • Practise word processing skills • Create a flyer using office suit • Use spreadsheet skills to plan a party • Use word processing skills to create an alternative book cover	<u>Flat file databases</u> • Create paper based database • Compare paper and computer database • Begin using databases • Compare databases visually • Recognise databases in real life and understand their purpose
Spring 2	<u>Word Processing</u> • Introduce Google Sheets and the functions available • Introduce Google Slides and the functions available	<u>Scratch</u> • Introduce differing loop algorithms and learn the difference • Debug looped dancing dinosaurs • Animate name • evaluate own and peers name	<u>Scratch</u> • Design and program a character game using scratch • Design characters and backdrop for game	<u>Scratch</u> • Evaluate scratch chasing game • Design own chasing game • Develop own chasing game using scratch code

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	• Use internet to research topic • Use multimedia apps to present information learned.	• Modify to improve animated name	• Add features/effects to enhance the game • Create an original animated game with a specific goal using levels and point scoring.	• Add features/effects to enhance the game • Review peers chasing game and leave a suggestion for improvement
Summer 1	<u>Hardware vs Software</u> • How does a digital device work? • What parts make up a digital device? • How do they help us? • What does our school network look like?	<u>Accessing the Internet</u> • Connecting networks • What is the internet made of? • Sharing information • What is a website? • Who owns the web? • Can I believe what I read?	<u>Communication and collaboration networks</u> • Systems • Computer systems and us • Transferring information • Working together • Shared working	<u>Word Processing</u> • What can we find out about our topic? • Use multimedia apps to collect information • Design and create content to present information to an audience
Summer 2	<u>Scratch</u> • Moving a sprite • Maze movement • Drawing lines • Adding features • Debugging movement	<u>Presenting Information</u> • UK Vs Italy - what are the similarities and differences? • Use spreadsheet to show the differences in specific features • Design and create content to present information to an audience.	<u>Presenting Information</u> • What can we find out about the rainforest? • Use multimedia apps to collect information • Design and create content to present information to an audience.	<u>Networks and the Internet</u> • What makes a good website? • Laying out a webpage • Copyright or not? • Follow the breadcrumbs • Think before you link