

Computing Curriculum Content Map 2022 / 2023

	Term 1 and 2	Term 3 and 4	Term 5 and 6			
Year R	<p>EYFS does not directly reference 'Computing' in the curriculum however, it is important for children to begin to learn basic skills and fundamentals of computing. Lessons will consist of the following: Basic coding (Bee Bots and via apps), Cursive font – shapes handwriting – finger following, Understanding and following simple instructions, Ceebeebies app – sequencing and Instructions, AR Dragon – simulations, Internet Safety. + Additional teacher requested support</p>					
Year 1	<p>Topic: Ahoy There Me Hearties!</p> <p>Focus: Online Safety & Exploring Purple Mash Digital Literacy</p> <p>NC Ref: * Recognise common uses of information technology beyond school * Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. Suggested ideas:</p>	<p>Topic: Ministry of Magic</p> <p>Focus: Grouping & Sorting Computer Science</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p> <p>Focus: Pictograms Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p>	<p>Topic: Amazing Animals</p> <p>Focus: Lego Builders Computer Science</p> <p>NC Ref: * Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Suggested ideas:</p> <p>Focus: Maze Explorers Computer Science</p> <p>NC Ref: * Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions * create and debug simple programs Suggested ideas:</p>	<p>Topic: Jambo! Africa</p> <p>Focus: Animated Story Books Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p> <p>Focus: Spreadsheets Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p>	<p>Topic: Once Upon a Time</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Suggested ideas:</p>	<p>Topic: Herne Bay</p> <p>Focus: Technology outside school Digital Literacy</p> <p>NC Ref: * Recognise common uses of information technology beyond school Suggested ideas:</p>

Key Vocabulary:
 Click, Drag, Drop, log in/ Log out, Username, Purple Mash, Pictogram, Data, Collate, Collect and combine, Rewind, Forward, Backwards, Debug Instruction, Algorithm, Code block, Coding, Collision Detection, Command, Cursor, Columns, Cells, Rows, Spreadsheet, Technology,

<p>Year 2</p>	<p>Topic: Superheroes</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Suggested ideas:</p>	<p>Topic: Superheroes</p> <p>Focus: Online Safety Digital Literacy</p> <p>NC Ref: * Recognise common uses of information technology beyond school * Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. Suggested ideas:</p> <p>Focus: Effective Searching Digital Literacy</p> <p>NC Ref: * Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions * use logical reasoning to predict the behaviour of simple programs * use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p>	<p>Topic: Space</p> <p>Focus: Questioning Information Technology</p> <p>NC Ref: * Create and debug simple programs * Use logical reasoning to predict the behaviour of simple programs Suggested ideas:</p> <p>Focus: Spreadsheets Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p>	<p>Topic: Space</p> <p>Focus: Creating Pictures Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Focus: Suggested ideas:</p>	<p>Topic: Brazil / Herne Bay</p> <p>Focus: Creating Music Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Focus: Suggested ideas:</p>	<p>Topic: Brazil / Herne Bay</p> <p>Focus: Presenting Ideas Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Focus: Suggested ideas:</p>
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Key Vocab:
Columns, Cells, Equals tool, Lock tool, Move cell tool, Rows, Spreadsheet, Algorithm, Bug, Code block Command, Debug/Debugging, Pictogram, Data, Collate, Binary Tree, Avatar, Database, Palette, Template, Internet, Search, Search Engine

<p>Year 3</p>	<p>Topic: India</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * 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 Suggested ideas:</p> <p>Focus: Online Safety Digital Literacy</p> <p>NC Ref: * Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Suggested ideas:</p>	<p>Topic: Prehistoric Britain</p> <p>Focus: Spreadsheets Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Ancient Egypt</p> <p>Focus: Touch Typing Information Technology</p> <p>NC Ref: *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 Suggested ideas:</p> <p>Focus: Email (inc. email safety) Digital Literacy</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Ancient Egypt</p> <p>Focus: Simulations Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: The Romans</p> <p>Focus: Graphing Information Technology</p> <p>NC Ref: * Use technology purposefully to create, organise, store, manipulate and retrieve digital content Suggested ideas:</p> <p>Focus: Branching Databases Information Technology</p> <p>NC Ref: * Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Suggested ideas:</p>	<p>Topic: The Romans</p> <p>Focus: Presenting Information Technology</p> <p>NC Ref: *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. Suggested ideas:</p>
<p>Key Vocab: Blog; Username, Website, Design, Event, Computer simulation, Posture, Top row keys, Home row keys, Bottom row keys, Space bar, Email, Report to the teacher, Attachment, Address book, CC, Simulation, Branching database, Database</p>						

<p>Year 4</p>	<p>Topic: Ancient Greece</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * 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. Suggested ideas:</p>	<p>Topic: Ancient Greece</p> <p>Focus: Online Safety Digital Literacy</p> <p>NC Ref: * Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Suggested ideas:</p> <p>Focus: Effective Searching Information Technology</p> <p>NC Ref: * Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Suggested ideas:</p>	<p>Topic: Big Freeze</p> <p>Focus: Spreadsheets Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Big Freeze</p> <p>Focus: Writing for Different Audiences Information Technology</p> <p>NC Ref: * Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Suggested ideas:</p> <p>Focus: Making Music Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Saxons</p> <p>Focus: Logo Computer Science</p> <p>NC Ref: * Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. * Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Suggested ideas:</p> <p>Focus: Hardware Investigators Computer Science</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Herne Bay</p> <p>Focus: Animation Information Technology</p> <p>NC Ref: * 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. Suggested ideas:</p>
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Key Vocab:
Cookies, Digital footprint, Malware, Search engine, Spoof website, Flowchart Bug, Debug/Debugging, Get Input If/Else, Simulation, Average, Columns, Cells, Charts, Formula Wizard
Spreadsheet, Font, Bold, Italic, Underline, LOGO, Animation, Onion skinning, Stop motion

<p>Year 5</p>	<p>Topic: Vikings</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * 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. Suggested ideas:</p> <p>Focus: Online Safety Digital Literacy</p> <p>NC Ref: * Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Suggested ideas:</p>	<p>Topic: Focus: Spreadsheets Information Technology</p> <p>NC Ref: * 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 Suggested ideas: Enhancement activity:</p> <p>Focus: Databases Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Focus: Game Creator Computer Science</p> <p>NC Ref: * Use sequence, selection, and repetition in programs; work with variables and various forms of input and output * Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. * Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Suggested ideas:</p>	<p>Topic: Focus: 3D Modelling Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Focus: Concept Maps Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: Focus: Word Processing Information Technology</p> <p>NC Ref: * 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. Suggested ideas:</p>
<p>Key Vocab: Online safety, Reputable ,Encryption, Citations; Sort, Group and Arrange, Algorithm ; Bug, Sequence, Selection, Animation, Interactive, Texture, Perspective, Playability, Advance mode, Equals tool, Formula Move cell tool, Spin Tool, CAD , 3Net , 3D Printing.</p>						

<p>Year 6</p>	<p>Topic: Amazing Maya</p> <p>Focus: Coding Computer Science</p> <p>NC Ref: * 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. Suggested ideas:</p> <p>Focus: Online Safety Digital Literacy</p> <p>NC Ref: * Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Suggested ideas:</p>	<p>Topic: Amazing Maya</p> <p>Focus: Spreadsheets (6.3) Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p> <p>Focus: Spreadsheets (6.9) Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: World War 2</p> <p>Focus: Blogging Information Technology</p> <p>NC Ref: * 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 Suggested ideas:</p> <p>Focus: Text Adventures Computer Science</p> <p>NC Ref: * 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 Suggested ideas:</p>	<p>Topic: World War 2</p> <p>Focus: Quizzing Information Technology</p> <p>NC Ref: * 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. Suggested ideas:</p>	<p>Topic: World War 2</p> <p>Focus: Networks Computer Science</p> <p>NC Ref: * 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 * 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 logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Suggested ideas:</p>	<p>Topic: Herne Bay</p> <p>Focus: Understanding Binary Computer Science</p> <p>NC Ref: * Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs * Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Suggested ideas:</p>
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Key Vocab:

PEGI rating, Phishing – The Network, Local area network (LAN) , Wide area network (WAN), Code Design, Control, Debug/Debugging, Event, If, Advance mode, Count, Equals tool, Timer, Text-based adventure, Concept map, Sprite, Function, Blog , Blog page, Blog post

