Computing Curriculum Overview

Year 3	Topics and National Curriculum links
Autumn 1	**Communication/Collaboration - Communicating safely on the internet** **NC:** Use technology safely, respectfully and responsibly; know a range of ways to report concerns and unacceptable behaviour
Autumn 2	**Computer Networks – exploring computer networks** **NC:** Appreciate how [search] results are selected and ranked Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web
Spring 1	**Programming – Sequence and animation** **NC** Use technology safely, respectfully and responsibly; acceptable and unacceptable behaviour and know a range of ways to report concerns and unacceptable behaviour Use sequence, selection, and repetition in programs; work with variables and various forms of input and output know a range of ways to report concerns and unacceptable behaviour
Spring 2	**Creativity – Create a video performance** **NC:** Use technology safely, respectfully and responsibly; 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 Be discerning in evaluating digital content
Summer 1	**Programming – Conditional events** **NC:** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Summer 2	**NC - Programming -** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. **Productivity - Collecting and Analysing data** **NC:** 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

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Year 4	Topics and National Curriculum links
Autumn 1	**Computer Networks - editing and creating html** **NC:** Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web Use and combine a variety of software (including internet services) to accomplish given goals, including presenting information Understand the opportunities [networks] offer for communication and collaboration
Autumn 2	**Communication/Collaboration – Produce a wiki** **NC:** Use search technologies effectively; Use technology safely, respectfully and responsibly; know a range of ways to report concerns and unacceptable behaviour
Spring 1	**Programming – Introduction to variables** **NC:** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
Spring 2	**Programming – Repetition & Loops** **NC:** 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; Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
Summer 1	**Creativity: Creating digital music/Present the weather** **NC:** 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 … information
Summer 2	**Productivity – Robotics We Do** **NC:** 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

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Year 5	Topics and National Curriculum links
Autumn 1	**Programming: Speed, direction and variables** **NC:** Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact 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
Autumn 2	**Programming: Random numbers and simulations** **NC:** 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 logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Spring 1	**Creativity – create a movie** **NC:** Use search technologies effectively 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
Spring 2	**Computer Networks - Create a webpage about cyber safety** **NC:** Understand the opportunities [networks] offer for communication and collaboration Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 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
Summer 1	**Communication/Collaboration- Sharing experiences and opinions (Blogging)** **NC:** Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web and Understand they offer for communication and collaboration 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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	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
Summer 2	**Productivity - Creating a virtual space** **NC:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 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 Be discerning in evaluating digital content. Appreciate how [search] results are selected and ranked.

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Year 6	Topics and National Curriculum links
Autumn 1	**Programming – More complex variables** **NC:** Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 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
Autumn 2	**Programming – Object properties** **NC:** 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
Spring 1	**Creativity – Create an animated film** **NC:** Use technology effectively; Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 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
Spring 2	**Computer networks – planning the creation of an app** **NC:** Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact 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 Work with … various forms of input and output.
Summer 1	**Communication/Collaboration - Designing the interface for an app** **NC:** 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

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Summer 2	**Productivity – Create an app** **NC:** 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 Understand the opportunities [networks] offer for communication and collaboration