



Computing Progression of Skills KS1 – Year 1

Year 1 National Curriculum Objectives: *In this unit, children will be taught to...*

KS1 Area of Study

- Computer Science: Coding 1 – exploring algorithms.
- Digital Artist 1 – exploring with ways to use technology to create images.
- Digital Researcher/Presenter 1 – exploring ways to find and share information.
- Digital Publisher 1 – exploring eBooks
- Digital Designer 1 – exploring 2D designs e.g. a map
- Digital Broadcaster 1 – explore audio recordings
- Additional opportunities: Explore Beebots to solve problems using computer science programming knowledge..

Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Computer Science

- 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.
- Use logical reasoning to predict the behaviour of simple programs.
- Use and understand words such as: *code, command, input*

Digital Literacy

- 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



Computing Progression of Skills KS1 – Year 2

Year 2 National Curriculum Objectives: *In this unit, children will be taught to...*

KS1 Area of Study

- Digital Animator 1 – Explore creating simple animations
- Computer Science: Coding 2 – create simple algorithms
- Digital Data Handler 1 – explore creating, inputting and sharing data
- Digital Researcher/Presenter 2 – experience web based information
- Digital Musician 1 – explore ways to sequence sounds digitally
- Digital Film Maker 1 – create a simple recording based on a timeline
- Additional opportunities: Explore turtle graphics on floor and screen using computer science programming knowledge.

Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

Computer Science

- 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
- Use logical reasoning to predict the behaviour of simple programs
- Use and understand words such as: *algorithm, bug, debug, repeat, sequence*

Digital Literacy

- 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.



Computing Progression of Skills KS2 – Year 3

Year 3 National Curriculum Objectives: <i>In this unit, children will be taught to...</i>	
<u>KS2 Area of Study</u> <ul style="list-style-type: none">• Computer Science: Coding 3 – Create a simple computer programme with multiple instructions.• Digital Artist 2 – Develop techniques to create digital artwork – e.g. patterns• Digital Researcher/Presenter 3 – Choose effective sources of information for a presentation• Digital Publisher 2 – Independently create an eBook• Digital Designer 2 – create a digital design net• Digital Broadcaster 2 – Use techniques to create digital recordings• Additional opportunities: Explore creating a simple programmed animation using computer science programming knowledge.	<u>Computer Science</u> <ul style="list-style-type: none">• 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 and understand words such as: <i>event, if, selection, variable</i>
<u>Information Technology</u> <ul style="list-style-type: none">• 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.	<u>Digital Literacy</u> <ul style="list-style-type: none">• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.



Computing Progression of Skills KS2 – Year 4

Year 4 National Curriculum Objectives: *In this unit, children will be taught to...*

KS2 Area of Study

- Digital Animator 2 – Use stop-frame animation techniques
- Computer Science: Coding 4 – Create a programme that includes multiple instructions
- Digital Data Handler 2 – Present a spreadsheet of information.
- Digital Researcher/Presenter 4 - Share a presentation with a range of techniques
- Digital Musician 2- create and edit a composition with a range of techniques.
- Digital Film Maker 2 – create and edit a short film sequence.
- Additional opportunities: Explore creating a quiz using computer science programming knowledge.

Information Technology

- 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.

Computer Science

- 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 and understand words such as: *if/else, simulation*

Digital Literacy

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.



Computing Progression of Skills KS2 – Year 5

Year 5 National Curriculum Objectives: *In this unit, children will be taught to...*

KS2 Area of Study

- Computer Science: Coding 5 – create and debug a programme to share
- Digital Artist 3 – use camera techniques to create a digital image
- Digital Researcher/Presenter 5 – confidently use presentation techniques to share information
- Digital Publisher 3 – design and create a digital publication
- Digital Designer 3 – create a 3D model with a variety of techniques.
- Digital Broadcaster 3 – Confidently create a recording using techniques.
- Additional opportunities: Explore creating computer games using knowledge of computer science to program – e.g. *Scratch*.

Information Technology

- 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.

Computer Science

- 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 and understand words such as: *get input, timer*

Digital Literacy

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.



Computing Progression of Skills KS2 – Year 6

Year 6 National Curriculum Objectives: *In this unit, children will be taught to...*

KS2 Area of Study

- Digital Animator 3 – use animation techniques and effects
- Computer Science: Coding 6 – Create and share complex programmes.
- Digital Researcher/Presenter 6 – Create and share complex presentations.
- Digital Data Handler 3 – Manipulate data for a desired effect.
- Digital Musician 3 – Create and share a complex musical recording.
- Digital Film Maker 3 – Use complex film making techniques to create and share a video.
- Additional opportunities: Explore creating simple websites or developing applications for the mobile phone.

Computer Science

- 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 and understand words such as: *tabs, internet, world wide web, network, LAN, router, wireless* and show a firm understanding of all previously learnt vocabulary.

Information Technology

- 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.

Digital Literacy

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact