# WCPS Computing Curriculum Overview 2025-2026

WYMONDHAM COLLEGE PREP SCHOOL

## WCPS Curriculum Intent for Computing

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.

We aim to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms, and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident, and creative users of information and communication technology.

| EYFS Statutory Framework Computing Related Objectives |
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| Although the technology strand has been removed from the EYFS curriculum, there are lots of other assessment opportunities that arise from delivering a well-planned Computing scheme. Computer science in EYFS is largely cross-curricular with strong links to communication and language, mathematics, physical development and the characteristics of effective learning in particular. This cross curricular coverage across EYFS is shown below:<br>Personal, Social and Emotional Development<br>• Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'.<br>Physical Development<br>• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.<br>ELG Personal, Social and Emotional Development Managing Self<br>• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.<br>• Explain the reasons for rules, know right from wrong and try to behave accordingly.<br>Expressive Arts and Design Creating with Materials<br>• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. |
| **EYFS Computing Curriculum** |
| Core Knowledge<br>1. Pupils will know how we use technology to take pictures<br>2. Pupils will know how to use the IWB to play simple games<br>3. Pupils will know how to use the IWB to write our graphemes.<br>4. Pupils will know what a beebot is.<br>5. Pupils will know how to set simple directions on a beebot.<br>6. Pupils will know how to use simple programmes on an iPad.<br>7. Pupils will know that a range of technology is used in places such as homes and schools.<br>8. Pupils will know that technology is used for particular purposes.<br>9. Pupils will know how to stay safe when using the technology |

10. Pupils will know what a sensible amount of screentime is

Hinterland Knowledge

- Pupils will know how we use technology safely
- Pupils will know how to take turns to use the IWB, so it reacts to finger touch.
- Pupils will know how technology can help us
- Pupils will know how to use a range of games to help promote writing formation.
- Pupils will know how to stay safe online and that it is important our adults are aware of what we are playing on our computers.
- Pupils will know many examples of technology and their function.

Skills

- Pupils will develop being able to turn ipads on and off
- Pupils will develop being able to select options on a IWB game
- Pupils will develop being able to use an app safely
- Pupils will develop being able to explain what being 'unsafe' means when using technology
- Pupils will develop being able to recognise various technologies

Wonder

- *I wonder how an ipad can take a photo…*
- *I wonder how I can use the pen to make my writing on a IWB better…*
- *I wonder what happens if I press another button…*
- *I wonder how the beebot works…*
- *I wonder if I can make the beebot go further without pressing it again and again…*
- *I wonder what this app does and how I use it…*
- *I wonder if there is a machine to do or make....*
- *I wonder what technology I have in my house/school…*
- *I wonder what I will do if I feel unsafe online…*
- *I wonder what would happen if I spend too long online…*

## Experiences & Provocations

Pupils will experience the curriculum by:

- having access to every day to a game on the IWB which has been modeled.
- having access to iPads to take pictures of their work.
- regular access to beebots and having the opportunity to work them with trial and error.
- viewing and having access to a variety of age-appropriate apps.
- having the opportunity to see what technology is used in my school
- hearing the story 'chicken clicking' and learn about what happens to the chicken when he is using the internet/

## Vocabulary - Tier 3 Subject Specific

iPad, button, screen, on, off, app, game, website, touch, click, link, unsafe, safe, technology, printer, visualiser, computer, laptop,

| KS1 National Curriculum |
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| Pupils should be taught to:<br>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions<br>• create and debug simple programs<br>• use logical reasoning to predict the behaviour of simple programs<br>• use technology purposefully to create, organise, store, manipulate and retrieve digital content<br>• recognise common uses of information technology beyond school<br>• 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. |

| Year 1 Computing Curriculum | | |
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| Autumn Term 1 | Spring Term 1 | Summer Term 1 |
| Computing systems and networks – Technology around us<br><br>Core Knowledge<br>1. Pupils will know what is meant by the term technology.<br>2. Pupils will know how technology helps us.<br>3. Pupils will know the main parts of a computer.<br>4. Pupils will know how to use a mouse.<br>5. Pupils will know how to use a keyboard. | Creating media – Digital writing<br><br>Core Knowledge<br>1. Pupils will know the purpose of a word processor.<br>2. Pupils will know how to add and remove text on a word processor.<br>3. Pupils will know how to change the look of text on a word processor (capital letters, bold, font etc).<br>4. Pupils will know how to select a section of text. | Programming A – Moving a robot<br><br>Core Knowledge<br>1. Pupils will know how to run a command on a device.<br>2. Pupils will know how to predict the outcome of a command on a dice.<br>3. Pupils will know how to give effective instructions to direct.<br>4. Pupils will know how to order commands into a sequence. |

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| 6. Pupils will know some basic rules to keep them safe when using technology.<br>Hinterland Knowledge<br>• Pupils will know purposes of using a mouse and keyboard in real life.<br>• Pupils will know how to edit text.<br>• Pupils will know how to click and drag using a mouse.<br><br>Skills<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to recognise.<br>• Pupils will develop being able to recall.<br>• Pupils will develop being able to explain.<br><br>Wonder<br>• *I wonder who invented the computer…*<br>• *I wonder how people lived without computers…*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by:<br>o Practically exploring and using technology at school, beyond computing lessons.<br>o Engaging in internet safety events in a class / whole school context.<br><br>Vocabulary - Tier 3 Subject Specific | Hinterland Knowledge<br>• Pupils will know the importance and purposes of using a word processor in real life.<br>• Pupils will know the function of different keys on a keyboard.<br>• Pupils will know how to navigate the toolbar in a word processor.<br>• Pupils will know some differences between writing on paper and using a word processor.<br><br>Skills<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to recognise.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to justify.<br><br>Wonder<br>• *I wonder how many pages you can use on a word processor….*<br>• *I wonder how you add pictures on a word processor….*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by: | 5. Pupils will know the importance of planning their programming.<br>6. Pupils will know how to debug a program they have created.<br>Hinterland Knowledge<br>• Pupils will know what programming is used for in the wider world.<br>• Pupils will know why effective instruction writing is important in the wider world – how does this learning impact our life outside of Computer Science.<br><br>Skills<br>• Pupils will develop being able to sequence.<br>• Pupils will develop being able to predict.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to evaluate.<br><br>Wonder<br>• *I wonder how scientists work to program computer games I like…*<br>• *I wonder what robots are used for in the wider world…*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by: |

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| Technology, computer, desktop, laptop, mouse, keyboard, screen, program, app, click, drag, typing, icon, file, edit, text, delete, cursor, internet. | • Practically exploring and using technology at school, beyond computing lessons. Using word processors for a purpose, such as typing up a piece of final writing.<br><br>Vocabulary - Tier 3 Subject Specific<br>Word processor, backspace, toolbar, bold, italic, underline, font, improve. | • Practically exploring and using technology at school, beyond computing lessons. Linking to other learning, such as direction in maths.<br><br>Vocabulary - Tier 3 Subject Specific<br>Beebot, robot, program, left, right, direction, command, sequence, repeat, instruction, prediction, debug, solution. |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| Creating media – Digital painting<br><br>Core Knowledge<br>1. Pupils will know what different freehand tools do in digital painting.<br>2. Pupils will know how to use line and shape tools.<br>3. Pupils will know how to select a certain tool for a particular purpose.<br>4. Pupils will know how to use the undo feature in a digital painting program.<br><br>Hinterland Knowledge<br>• Pupils will know the names of artists who create digital art. | Data and information – Grouping data<br><br>Core Knowledge<br>1. Pupils will know why objects have labels including the purposes of these.<br>2. Pupils will know how to describe objects in different ways (ex: colour, size).<br>3. Pupils will know how to compare groups of objects.<br>4. Pupils will know how to record their findings.<br><br>Hinterland Knowledge<br>• Pupils will know the purpose of searching on a computer.<br>• Pupils will know how to classify objects.<br>• Pupils will know why this information is relevant to a computer search. | Programming B – Introduction to animation<br><br>Core Knowledge<br>1. Pupils will know how to choose a command in Scratch Jr programming.<br>2. Pupils will know how to join together a series of commands.<br>3. Pupils will know the effect of changing a value in the programming blocks.<br>4. Pupils will know how to create and test a program.<br><br>Hinterland Knowledge<br>• Pupils will know what types of projects can be created using Scratch Jr. |

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| • Pupils will know that there are many digital painting programs which are suitable for different purposes or devices.<br>• Pupils will know some differences between art on paper and digital art.<br><br>Skills<br>• Pupils will develop being able to describe.<br>• Pupils will develop being able to compare.<br>• Pupils will develop being able to justify.<br>• Pupils will identify being able to critique.<br><br>Wonder<br>• *I wonder why people started choosing to make digital art instead of on paper…*<br>• *I wonder how many different colours can be used in a digital painting program…*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by:<br>• Practically exploring and using technology at school, beyond computing lessons.<br>• Exploring particular digital artists and looking at their work.<br><br>Vocabulary - Tier 3 Subject Specific<br>Digital painting, freehand tool, fill, undo, artist, appropriate, style, brush. | Skills<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to label.<br>• Pupils will develop being able to categorise.<br>• Pupils will develop being able to explain.<br>Wonder<br>• *I wonder how search engines like Google work…*<br>• *I wonder how many results you can get when using a search engine…*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by:<br>• Practically exploring and using technology at school, beyond computing lessons – making links between their learning and the real world by using search engines for a purpose (ex: researching African animals in our English lessons).<br><br>Vocabulary - Tier 3 Subject Specific<br>Search, label, group, task, record. | • Pupils will know how to make appropriate choices in their own project (ex: backgrounds and sprites).<br>Skills<br>• Pupils will develop being able to sequence.<br>• Pupils will develop being able to predict.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to evaluate.<br><br>Wonder<br>• *I wonder how long I could make an algorithm…*<br>• *I wonder how programming was invented…*<br><br>Experiences & Provocations<br>Pupils will experience the curriculum by:<br>• Practically exploring and using technology at school, beyond computing lessons. Linking to other learning in cross-curricular opportunities.<br><br>Vocabulary - Tier 3 Subject Specific<br>Algorithm, sprite, background, block, 'run the program'. |

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## Managing Online Information

Across all strands of the Computing Curriculum, and in multiple subjects, pupils will continuously develop their knowledge and understand the importance of staying safe when managing information and tools online.

### Core Knowledge

- Pupils will know they can encounter a range of things online including things we like and don't like
- Pupils will know they can encounter things online which are real or make believe / a joke
- Pupils will know they can get help if they see content that makes them feel sad, uncomfortable, worried or frightened
- Pupils will know how to get help from a trusted adult.

### KS1 National Curriculum

Pupils should be taught to:

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

| Year 2 Computing Curriculum | | |
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| **Autumn Term 1** | **Spring Term 1** | **Summer Term 1** |
| Computing systems and networks – IT around us<br><br>Core Knowledge<br>1. Pupils will know what a computer is.<br>2. Pupils will know the different purposes that computers are used for.<br>3. Pupils will know how different devices work together.<br>4. Pupils will know why we use IT.<br>5. Pupils will know how to stay safe online when using computers.<br>6. Pupils will know how different IT is suited for different activities.<br>Hinterland Knowledge<br>• Pupils will know what IT different occupations use.<br><br>Skills<br>• Pupils will develop being able to recognise types of technology.<br>• Pupils will develop being able to compare and contrast the purposes of technology.<br>• Pupils will develop being able to explain why IT is important in everyday life. | Programming A- Robot Algorithms<br><br>Core Knowledge<br>1. Pupils will know what a sequence is.<br>2. Pupils will know what an algorithm is.<br>3. Pupils will know why the same instructions can create different outcomes.<br>4. Pupils will know how algorithms can have artwork.<br>5. Pupils will know how to create an algorithm.<br>6. Pupils will know what debugging is.<br><br>Hinterland Knowledge<br>• Pupils will know how everybody at school follows an algorithm every day.<br>• Pupils will know that all IT follows algorithms.<br><br>Skills<br>• Pupils will develop being able to give and follow instructions.<br>• Pupils will develop being able to program a sequence. | Creating media – Digital music<br><br>Core Knowledge<br>1. Pupils will know the different features of music.<br>2. Pupils will know how music is created and played.<br>3. Pupils will know how to connect images with sound.<br>4. Pupils will know what a musical pattern is.<br>5. Pupils will know the different purposes of music.<br><br>Hinterland Knowledge<br>• Pupils will know the different genres of music.<br>• Pupils will know different countries have different traditional music.<br><br>Skills<br>• Pupils will develop being able to describe how music makes them feel.<br>• Pupils will develop being able to identify features of music they like and dislike. |

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| • Pupils will develop being able to summarise how to stay safe when using computers.<br><br>Wonder<br>• *I wonder when the first computer was invented…*<br>• *I wonder how many people have computers…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Completing a walk around the school to look at all the computer types.<br>  ○ E-safety day.<br><br>Vocabulary - Tier 3 Subject Specific<br>Computer IT Online | • Pupils will develop being able to compare a prediction and an outcome.<br>• Pupils will develop being able to explain their algorithm design and component parts.<br><br>Wonder<br>• *I wonder what the longest algorithm is…*<br>• *I wonder if the whole school could follow the same algorithm at the same time…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Giving others algorithms to follow.<br>  ○ Testing their algorithms on BeeBots.<br><br>Vocabulary - Tier 3 Subject Specific<br>Sequence Algorithm Instruction Debug | • Pupils will develop being able to create and play a rhythmic pattern.<br>• Pupils will develop being able to explain the different ways music is played.<br><br>Wonder<br>• *I wonder what the first piece of music was…*<br>• *I wonder what the most musical instruments played at the same time is…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Creating their own musical pattern on a computer.<br><br>Vocabulary - Tier 3 Subject Specific<br>Rhythm Instrument Pitch Notes |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| Creating media – Digital photography<br><br>Core Knowledge<br>1. Pupils will know the devices that can take photographs.<br>2. Pupils will know the different features of photographs.<br>3. Pupils will know what makes a good photograph. | Data and information - Pictograms<br><br>Core Knowledge<br>1. Pupils will know what a tally chart is and what the tally represents.<br>2. Pupils will know how objects can be represented as pictures.<br>3. Pupils will know what a pictogram is.<br>4. Pupils will know what an attribute is. | Programming B – Programming quizzes<br><br>Core Knowledge<br>1. Pupils will know a program needs to be started.<br>2. Pupils will know the commands cause the outcome.<br>3. Pupils will know what instruction each command represents. |

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| 4. Pupils will know how to improve a photograph.<br>5. Pupils will know the tools that can be used to edit photographs.<br><br>Hinterland Knowledge<br>• Pupils will know why and when photo editing is used.<br>• Pupils will know how photographs are stored once taken.<br><br>Skills<br>• Pupils will develop being able to describe and demonstrate how to take a photograph.<br>• Pupils will develop being able to critique a photograph.<br>• Pupils will develop being able to use photographic tools.<br>• Pupils will develop being able to compare and contrast photographs.<br><br>Wonder<br>• *I wonder what was used before cameras…*<br>• *I wonder where the first camera is now…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: | 5. Pupils will know why some information should not be shared.<br>6. Pupils will know how computers are used to present information.<br><br>Hinterland Knowledge<br>• Pupils will know why information can be presented in different formats.<br>• Pupils will know where and when this informational data would be used.<br><br>Skills<br>• Pupils will develop being able to compare tally chart and pictogram data.<br>• Pupils will develop being able to collect and record data.<br>• Pupils will develop being able to compare attribute data.<br>• Pupils will develop being able to represent data in different formats on a computer.<br>• Pupils will develop being able to explain why some information should not be shared.<br><br>Wonder<br>• *I wonder why a tally chart was invented?*<br>• *I wonder how many different charts exist...*<br><br>Experiences & Provocations | 4. Pupils will know the features of a Scratch design.<br>5. Pupils will know a sequence of blocks creates an algorithm.<br>6. Pupils will know what debug means.<br><br>Hinterland Knowledge<br>• Pupils will know all computers have programs.<br>• Pupils will know the consequences of bugs on computers.<br><br>Skills<br>• Pupils will develop being able to explain how to start a sequence.<br>• Pupils will develop being able to compare two sequences.<br>• Pupils will develop being able to design, create and edit a program.<br>• Pupils will develop being able to evaluate and improve a program.<br><br>Wonder<br>• *I wonder what the first computer program was…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: |

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| ○ Taking and editing photographs using iPads.<br><br>Vocabulary - Tier 3 Subject Specific<br>Digital Portrait Landscape Effect | • Pupils will experience the curriculum by:<br>○ Collecting and presenting data on their fellow pupils.<br><br>Vocabulary - Tier 3 Subject Specific<br>Tally Pictogram Attribute | ○ Creating their own quiz on Scratch.<br><br>Vocabulary - Tier 3 Subject Specific<br>Sequence Program Sprite Debug |

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### Core Knowledge

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- Pupils will know they can encounter things online which are real or make believe / a joke
- Pupils will know they can get help if they see content that makes them feel sad, uncomfortable, worried or frightened
- Pupils will know how to get help from a trusted adult.

## KS2 National Curriculum

Pupils are 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.

| Year 3 Computing Curriculum | | |
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| Autumn Term 1 | Spring Term 1 | Summer Term 1 |
| Computing systems and networks – Connecting Computers<br><br>Core Knowledge<br>1. Pupils will know how digital devices function.<br>2. Pupils will know what input and output is on devices.<br>3. Pupils will know how digital devices can change the way we work.<br>4. Pupils will know how a computer network can be used to share information.<br>5. Pupils will know how digital devices can be connected.<br>6. Pupils will know the physical components of a network<br><br>Hinterland Knowledge<br>• Pupils will know of Lawrence Roberts, who developed computer networks at ARPA and was the first person to connect two computers. | Programming A - Sequence in Music<br><br>Core Knowledge<br>1. Pupils will know about a new programming environment.<br>2. Pupils will know that commands have an outcome.<br>3. Pupils will know that a program has a start.<br>4. Pupils will know that a sequence of commands can have an order.<br>5. Pupils will know how to change the appearance of their project.<br>6. Pupils will know to create a project from a task description.<br><br>Hinterland Knowledge<br>• Pupils will know examples of programmes in their life<br>• Pupils will know how programming affects their lives.<br><br>Skills | Creating media – Desktop Publishing<br><br>Core Knowledge<br>1. Pupils will know how text and images convey information.<br>2. Pupils will know that text and layout can be edited.<br>3. Pupils will know to choose appropriate page settings.<br>4. Pupils will know to add content to a desktop publishing publication.<br>5. Pupils will know how different layouts can suit different purposes.<br>6. Pupils will know the benefits of desktop publishing<br><br>Hinterland Knowledge<br>• Pupils will know examples of jobs that use a lot of desktop publishing e.g. marketing<br>• Pupils will know different types of media that are used to present information |

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| • Pupils will know of Leonard Kleinrock, who proposed the idea of ARPANET, one of the earliest computer networks, and worked with Lawrence Roberts to develop computer networks at ARPA.<br>• Pupils will know about the National Science & Media Museum and the history of the internet: A short history of the internet \| National Science and Media Museum<br><br>Skills<br>• Pupils will develop being able to explain<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to recognise changes<br>• Pupils will develop being able to explore<br><br>Wonder<br>• *I wonder what it was like the first time you could communicate through two computers…*<br>• *I wonder what the world would be like now if we didn't have computer networks – how would it be different?*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: | • Pupils will develop being able to explore<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to sequence.<br><br>Wonder<br>• *I wonder what the first thing was that was programmed on a computer…*<br>• *I wonder what programming in the future might look like…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>o Exploring appropriate apps (Garage Band, INCREDIBOX) to create sequences of music<br><br>Vocabulary - Tier 3 Subject Specific<br>Programming, Scratch, Blocks, Commands, Code, Sprite, Stage, Costume, Backdrop, Debugging. | Skills<br>• Pupils will develop being able to evaluate the decisions they make<br>• Pupils will develop being able to make choices for certain audiences<br><br>Wonder<br>• *I wonder why it's called 'desktop' publishing…*<br>• *I wonder what other sorts of software is out there to publish information…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>o Using their skills to publish work from across the curriculum.<br>Vocabulary - Tier 3 Subject Specific<br>o Publishing, Text, Images, Font, Templates, Orientation, Placeholders, Software, Purpose, Audience. |

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| ○ Exploring and discussing the computer networks they access in school and at home.<br>○ Reflecting on how networks were used during the Covid pandemic for home schooling<br><br>Vocabulary - Tier 3 Subject Specific<br>Digital Device, Input, Process, Output, Connection, Network, Network Switch, Server, WAP. E-Safety. | | |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| Creating media – Animation<br><br>Core Knowledge<br>1. Pupils will know that animation is a sequence of drawings or photographs.<br>2. Pupils will know the relationship between animated movement and a sequence of images.<br>3. Pupils will know how to plan an animation.<br>4. Pupils will know how to create an animation | Data and information – Branching Databases<br><br>Core Knowledge<br>1. Pupils will know to create questions with yes/no answers.<br>2. Pupils will know to identify the object attributes needed to collect relevant data.<br>3. Pupils will know how to create a branching database. | Programming B – Programming events and actions in programs<br><br>Core Knowledge<br>1. Pupils will know how a sprite moves in an existing project.<br>2. Pupils will know to create a program to move a sprite in four directions.<br>3. Pupils will know to adapt a program to a new context. |

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| Hinterland Knowledge<br>• Pupils will know some examples of different types of early animation e.g. flick books,<br>• Pupils will know something about the impact of Walt Disney on early attempts at animation<br><br>Skills<br>• Pupils will develop being able to explain<br>• Pupils will develop being able to work consistently and carefully<br>• Pupils will develop being able to review and improve their work<br>• Pupils will develop being able to evaluate their work<br>Wonder<br>• *I wonder what the first recorded digital animation was…*<br>• *I wonder what Disney's first animation was…*<br>• *I wonder what it would be like having a job as an animator…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Watching animated stop motion films<br>  ○ Creating their own short animation | 4. Pupils will know why it is helpful for a database to be well structured.<br>5. Pupils will know to identify objects using a branching database.<br>6. Pupils will know to compare the information shown in a pictogram with a branching database<br><br>Hinterland Knowledge<br>• Pupils will know examples of how branching databases are used in the real world<br>• Pupils will know how data is used and is important in the world of work<br><br>Skills<br>• Pupils will develop being able to categorise.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to plan things.<br><br>Wonder<br>• *I wonder how the Victorians used branching data bases to identify newly discovered creatures – National History Museum / Darwin*<br>• *I wonder how they are used today in the 21st Century*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: | 4. Pupils will know to develop a program by adding features.<br>5. Pupils will know how to identify and fix bugs in a program.<br>6. Pupils will know to design and create a maze-based challenge<br><br>Hinterland Knowledge<br>• Pupils will know some examples of famous computer games that use similar programming.<br><br>Skills<br>• Pupils will develop being able to explain<br>• Pupils will develop being able to adapt and edit their work.<br>• Pupils will develop being able to identify problems<br>• Pupils will develop being able to design and create<br><br>Wonder<br>• *I wonder what was the first computer game…*<br>• *I wonder what computer games my parents played when they were young…*<br><br>Experiences & Provocations |

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| ○ Watching some behind the scenes documentary footage on how animations are made<br><br>Vocabulary - Tier 3 Subject Specific<br>Animation, Frame, Illusion, Sequence, Onion Skinning, Playback, Storyboard, Audio, Consistency, Text | ○ Creating a branching database linked to other areas of the curriculum e.g., sorting animals in science.<br><br>Vocabulary - Tier 3 Subject Specific<br>Information, Data, Attributes, Group, Branching, Database, Multiply, Classify, Structure, Present | • Pupils will experience the curriculum by:<br>○ Creating their own games to be played by their classmates.<br><br>Vocabulary - Tier 3 Subject Specific<br>Programming, Scratch, Blocks, Commands, Codes, Events, Motion, Sequencing, Trialing, Debugging |

## Managing Online Information and an Online Reputation

Across all strands of the Computing Curriculum, and in multiple subjects, pupils will continuously develop their knowledge and understand the importance of staying safe when managing information and tools online.

### Core Knowledge

- Pupils will know what people may or maynot be willing to share online and explain what information is too personal to share online.
- Pupils will know how identity online can be copied, modified or altered.
- Pupils will know appropriate ways to behave towards other people online and why this is important.
- Pupils will know simple strategies for creating and keeping passwords private.
- Pupils will know what to do if a password is shared, lost or stolen.

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| Pupils are taught to:<br>▪ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>▪ use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>▪ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>▪ 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<br>▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>▪ 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<br>▪ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |

| Year 4 Computing Curriculum | | |
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| Autumn Term 1 | Spring Term 1 | Summer Term 1 |
| Computing systems and networks – The Internet<br><br>Core Knowledge<br>1. Pupils will know how networks connect to other networks<br>2. Pupils will know how networked devices make up the internet<br>3. Pupils will know how websites can be shared via the world wide web (www) | Programming A – Repetition in shapes<br><br>Core Knowledge<br>1. Pupils will know how to identify that accuracy in programming is important<br>2. Pupils will know how to program a computer by typing commands<br>3. Pupils will know how to use a template to draw what I want my program to do | Creating media – Photo editing<br><br>Core Knowledge<br>1. Pupils will know how to explain that the composition of digital images can be changed (rotate, crop etc...)<br>2. Pupils will know how to explain how colours can be changed in digital images<br>3. Pupils will know how to explain how cloning can be used in photo editing |

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| 4. Pupils will know how content can be added and accessed on the world wide web<br>5. Pupils will know how to evaluate the consequences of unreliable content<br><br>Hinterland Knowledge<br>• Pupils will know who owns and is responsible for the internet<br>• Pupils will know that everything accessed on the internet is not true, honest or accurate<br><br>Skills<br>• Pupils will develop being able to explore<br>• Pupils will develop being able to describe<br>• Pupils will develop being able to outline<br>• Pupils will develop being able to analyse<br>• Pupils will develop being able to evaluate<br><br>Wonder<br>• *I wonder how the world wide web was invented...*<br>• *I wonder if anyone can upload content on the world wide web...*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>o opportunities to explore the World Wide Web for themselves in order | 4. Pupils will know how to use a template to draw what they want their program to do<br>5. Pupils will know how to create a count-controlled loop to produce a given outcome<br><br>Hinterland Knowledge<br>• Pupils will know how to create a code snippet for a given purpose<br>• Pupils will know how to create a code snippet for a given purpose<br>• Pupils will know how to write an algorithm to produce a given outcome<br>• Pupils will know how to identify repetition in everyday tasks<br>• Pupils will know how to choose which values to change in a loop<br>• Pupils will know how to identify 'chunks' of actions in the real world<br><br>Skills<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to recognise<br>• Pupils will develop being able to compare<br>• Pupils will develop being able to sequence<br>• Pupils will develop being able to evaluate<br><br>Wonder | 4. Pupils will know how to explain that images can be combined<br>5. Pupils will know how to create a project that is a combination of other images<br>6. Pupils will know how to evaluate how changes can improve an image<br><br>Hinterland Knowledge<br>• Pupils will know how to explain why they chose certain colour effects<br>• Pupils will know how to remove parts of an image using cloning<br>• Pupils will know how to experiment with tools to select and copy part of an image<br><br>Skills<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to describe<br>• Pupils will develop being able to compare<br>• Pupils will develop being able to evaluate<br><br>Wonder<br>• *I wonder how photos have changed throughout history*<br>• *I wonder how I could improve my photos*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: |

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| to learn about who owns content and what they can access, add, and create<br><br>Vocabulary - Tier 3 Subject Specific<br>Connect, network, device, router, internet, World Wide Web, website, web page, sharing, media, content | • *I wonder how many repeating patterns I can make*<br>• *I wonder what games I play that use repeated patterns*<br>•<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Exploring how to create codes<br>  ○ Using logo programs<br><br>Vocabulary - Tier 3 Subject Specific<br>Command, program, code, snippet, algorithm, template, repetition, outcome, pattern, sequence | ○ Explore taking photos<br>○ Creating and editing digital images<br><br>Vocabulary - Tier 3 Subject Specific<br>Crop, composition, digital, edit, re-colour, cloning, image |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| Creating media - Audio production<br><br>Core Knowledge<br>1. Pupils will know how to record sound on a computer<br>2. Pupils will know how to identify the input and output devices used to record and play sound<br>3. Pupils will know how to explain that audio recordings can be edited | Data and information – Data logging<br><br>Core Knowledge<br>1. Pupils will know how data gathered over time can be used to answer questions<br>2. Pupils will know how to explain what data can be collected using sensors<br>3. Pupils will know how to identify that data from sensors can be recorded<br>4. Pupils will know how to identify the intervals used to collect data | Programming B – Repetition in games<br><br>Core Knowledge<br>1. Pupils will know how to develop the use of count-controlled loops in a different programming environment<br>2. Pupils will know how to modify loops to produce a given outcome, and can choose when to use a count-controlled and an infinite loop |

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| 4. Pupils will know how to apply audio editing skills<br>5. Pupils will know how to explain the difference between saving a project and exporting an audio file<br>6. Pupils will know how to evaluate the effective use of audio<br><br>Hinterland Knowledge<br>• Pupils will know how to inspect the soundwave view to know where to trim my recording<br>• Pupils will know how sounds can be combined.<br>• Pupils will know how to plan the content for a podcast.<br>• Pupils will know how to arrange multiple sounds to create the effects they want<br><br>Skills<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to compare<br>• Pupils will develop being able to evaluate<br><br>Wonder<br>• *I wonder why podcasts are so popular*<br>• *I wonder how I could improve my podcast*<br>• *I wonder what people had before podcasts* | 5. Pupils will know how to sort data to find information<br><br>Hinterland Knowledge<br>• Pupils will know how to identify that data from sensors can be recorded<br>• Pupils will know how to talk about the data that they have captured<br>• Pupils will know how to interpret data that has been collected using a data logger<br>• Pupils will know how to explain the benefits of using a data logger<br><br>Skills<br>• Pupils will develop being able to recognise<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to observe<br>• Pupils will develop being able to explain<br>• Pupils will develop being able to evaluate<br><br>Wonder<br>• *I wonder how a data logger works*<br>• *I wonder when we might use a data logger*<br><br>Experiences & Provocations | 3. Pupils will know how to develop a design that includes two or more loops which run at the same time<br>4. Pupils will know how to modify an infinite loop in a given program<br>5. Pupils will know how to design a project that includes repetition and evaluate this<br>6. Pupils will know how to create a project that includes repetition<br><br>Hinterland Knowledge<br>• Pupils will know how to predict the outcome of a snippet of code<br>• Pupils will know how to recognise that some programming languages enable more than one process to be run at once<br>• Pupils will know how to explain what the outcome of the repeated action should be<br>• Pupils will know how to develop their own design explaining what the project will do<br>• Pupils will know how to refine the algorithm in their design<br><br>Skills<br>• Pupils will develop being able to identify<br>• Pupils will develop being able to recognise<br>• Pupils will develop being able to compare<br>• Pupils will develop being able to sequence |

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| Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Researching and listening to different podcasts<br>  ○ Sharing their podcasts with each other<br><br>Vocabulary - Tier 3 Subject Specific<br>Input, output, audio, digital, record, edit, soundwave, export, save, file, podcast, trim | • Pupils will experience the curriculum by:<br>  ○ Explore using data loggers<br><br>Vocabulary - Tier 3 Subject Specific<br>Sensors, data, logger, collect, sensor, interpret, capture, record | • Pupils will develop being able to evaluate<br><br>Wonder<br>• *I wonder how I could use my previous learning to help me with my programme.*<br>• *I wonder how I could improve my work further.*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Explore creating their own programmes<br><br>Vocabulary - Tier 3 Subject Specific<br>Count-controlled loop, repetition, command, code, snippet, algorithm, template, repetition, outcome, pattern, sequence, environment, programming, |

| KS2 National Curriculum |
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| Pupils are taught to:<br>▪ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>▪ use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>▪ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>▪ 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<br>▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>▪ 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<br>▪ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |

| Year 5 Computing Curriculum | | |
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| Autumn Term 1 | Spring Term 1 | Summer Term 1 |
| Computing systems and networks – Systems and searching<br><br>Core Knowledge<br>1. Pupils will know that computers can be connected together to form systems.<br>2. Pupils will know the role of computer systems in our lives.<br>3. Pupils will know how information is transferred over the internet | Programming A – Selection in physical computing<br><br>Core Knowledge<br>1. Pupils will know how to control a simple circuit connected to a computer.<br>2. Pupils will know how to write a program that includes count-controlled loops.<br>3. Pupils will know that a loop can stop when a condition is met. | Creating media – introduction to Vector graphics.<br><br>Core Knowledge<br>1. Pupils will know how drawing tools can be used to produce different outcomes.<br>2. Pupils will know how to create a vector drawing by combining shapes.<br>3. Pupils will know how to use tools to achieve a desired effect. |

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| 4. Pupils will know how sharing information online lets people in different places work together.<br>5. Pupils will know how to contribute to a shared project online.<br><br>Hinterland Knowledge<br>• Pupils will know how the systems in their favourite games/technology works.<br>• Pupils will know what happened before computers.<br>• Pupils will know how different systems in school work.<br><br>Skills<br>• Pupils will develop being able to contribute to a share project online.<br>• Pupils will be able to evaluate different ways of working together online.<br>• Pupils will develop being able to explain.<br><br>Wonder<br>• *I wonder how the system works in my Xbox…*<br>• *How have peoples' lives changed with computers…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: | 4. Pupils will know how to design a physical project that includes selection.<br>5. Pupils will know how to create a program that controls a physical computing project.<br><br>Hinterland Knowledge<br>• Pupils will know how to design a project that is linked to cross-curricular ideas.<br><br>Skills<br>• Pupils will develop being able to observe.<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to sequence.<br>• Pupils will develop being able to evaluate.<br><br>Wonder<br>• *I wonder how I can create a program to show my learning…*<br>• *I wonder what the best selection will be for the audience…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Creating programs which they share with others. | 4. Pupils will know how to recognise that vector drawings consist of layers.<br>5. Pupils will know how to group objects to make them easier to work with.<br>6. Pupils will know how to evaluate their vector drawing.<br><br>Hinterland Knowledge<br>• Pupils will know how to create different Vector drawings for different effects.<br>• Pupils will know where Vector drawings have been used in everyday life.<br><br>Skills<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to compare and contrast.<br>• Pupils will develop being able to describe.<br>• Pupils will develop being able to create.<br><br>Wonder<br>• *I wonder where Vector drawings are used in everyday life…*<br>• *I wonder how to create different styles of vector drawing…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by: |

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| ○ Creating content collaboratively online. | | ○ Putting their drawings on display.<br>○ Working in pairs and groups to combine their work created. |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| **Creating Media – Video Production**<br><br>Core Knowledge<br>1. Pupils will know what makes an effective video – looking at features.<br>2. Pupils will know how to use a digital device to film a video, experimenting with different camera angles and using a microphone.<br>3. Pupils will know how to capture video using a range of techniques.<br>4. Pupils will know how to review how effective their video is and edit it or reshoot it to make it better.<br>5. Pupils will know that the choices made when making a video will impact the quality of the outcome.<br><br>Hinterland Knowledge<br>• Pupils will know the best places to film their video.<br>• Pupils will know how to use drama skills in create a good video. | **Data, Information and Flat-file Databases.**<br><br>Core Knowledge<br>1. Pupils will know how to use a form to record information.<br>2. Pupils will know how to compare paper and computer-based databases.<br>3. Pupils will know that grouping and sorting data allows us to answer questions.<br>4. Pupils will know how tools can be used to select specific data.<br>5. Pupils will know how computer programs can be used to compare data visually.<br>6. Pupils will know how to apply knowledge of. Database to ask and answer real-world questions.<br><br>Hinterland Knowledge<br>• Pupils will know the types of databases used in school to record information.<br>• Pupils will know how to record their own data onto a database. | **Programming B – Selection in quizzes**<br><br>Core Knowledge<br>1. Pupils will know how selection is used in computer programs.<br>2. Pupils will know why a conditional statement connects a condition to an outcome.<br>3. Pupils will know how selection directs the flow of a program.<br>4. Pupils will know how to design a program which uses selection.<br>5. Pupils will know how to create a program which uses selection.<br>6. Pupils will know how to evaluate a program.<br><br>Hinterland Knowledge<br>• Pupils will know how quizzes use selection.<br>• Pupils will know how their favourite quizzes work.<br>• Pupils will know how to compare and contrast quiz methods. |

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| Skills<br>• Pupils will develop being able to critique.<br>• Pupils will develop being able to sequence.<br>• Pupils will develop being able to reason.<br>• Pupils will develop being able to evaluate.<br><br>Wonder<br>• *I wonder where the best place to film our video would be…*<br>• *I wonder how our character should react in different situations…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Creating a video using media in a group.<br>  ○ Using drama and speaking and listening skills. | Skills<br>• Pupils will develop being able to catagorise.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to critique.<br>• Pupils will develop being able to observe.<br><br>Wonder<br>• *I wonder how databases work at school…*<br>• *I wonder how to record my data/findings on a database…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Children will complete a questionnaire to find their data and then record it on a database. | Skills<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to explain.<br>Pupils will develop being able to design.<br><br>Wonder<br>• *I wonder how my quiz games work…*<br>• *I wonder which quiz methods are best...*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Designing a program which uses selection. |
| Managing Online Information and an Online Reputation<br><br>Across all strands of the Computing Curriculum, and in multiple subjects, pupils will continuously develop their knowledge and understand the importance of staying safe when managing information and tools online.<br><br>Core Knowledge<br>• Pupils will know what a digital personality is<br>• Pupils will know strategies to use to protect their 'digital personality' and online reputation<br>• Pupils will know how online anonymity can protect their online reputation | | |

- Pupils will know they can encounter a range of things online including things we like and don't like
- Pupils will know they can encounter things online which are real or make believe / a joke
- Pupils will know they can get help if they see content that makes them feel sad, uncomfortable, worried or frightened
- Pupils will know how to get help from a trusted adult.

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| Pupils are taught to:<br>▪ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts<br>▪ use sequence, selection, and repetition in programs; work with variables and various forms of input and output<br>▪ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs<br>▪ 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<br>▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content<br>▪ 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<br>▪ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |

| Year 6 Computing Curriculum | | |
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| Autumn Term 1 | Spring Term 1 | Summer Term 1 |
| Computing systems and networks – Communication<br><br>Core Knowledge<br>1. Pupils will know how to use a search engine.<br>2. Pupils will know how search engines select results.<br>3. Pupils will know how search results are ranked.<br>4. Pupils will know why the order of results is important, and to whom. | Programming A – Variables in games<br><br>Core Knowledge<br>1. Pupils will know how to define a variable as something that is changeable.<br>2. Pupils will know how to explain why a variable is used in a program.<br>3. Pupils will know how to improve a game by using variables.<br>4. Pupils will know how to design a project that builds on a given example. | Creating Media – 3D modelling<br><br>Core Knowledge<br>1. Pupils will know how to use a computer to create and manipulate three-dimensional (3D) digital objects.<br>2. Pupils will know how to compare working digitally with 2D and 3D graphics.<br>3. Pupils will know how to construct a digital 3D model of a physical object. |

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| 5. Pupils will know how we communicate using technology.<br>6. Pupils will know how to evaluate different methods of online communication.<br><br>Hinterland Knowledge<br>• Pupils will know how to complete research searches linking to the wider curriculum.<br>• Pupils will know why social media has age restrictions and how to keep themselves safe online.<br><br>Skills<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to interpret.<br>• Pupils will develop being able to describe.<br>• Pupils will develop being able to explain.<br><br>Wonder<br>• *I wonder how to research my topic...*<br>• *I wonder how social media links to online communication…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Exploring and evaluating search results. | 5. Pupils will know how to use my design to create a project.<br>6. Pupils will know how to evaluate a project.<br><br>Hinterland Knowledge<br>• Pupils will know how to use a model for inspiration.<br>• Pupils will know to design a game for a particular age group.<br><br>Skills<br>• Pupils will develop being able to define.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to design.<br>• Pupils will develop being able to interpret.<br><br>Wonder<br>• *I wonder what this particular age group would want in a game...*<br>• *I wonder how to create my own game based on the example...*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Creating their own game. | 4. Pupils will know how to identify that physical objects can be broken down into a collection of 3D shapes.<br>5. Pupils will know how to design a digital model by combining 3D objects.<br>6. Pupils will know how to develop and improve a digital 3D model.<br><br>Hinterland Knowledge<br>• Pupils will know how 3D objects are made using different forms of technology.<br>• Pupils will know how 3D items can be made without technology.<br><br>Skills<br>• Pupils will develop being able to describe.<br>• Pupils will develop being able to reason.<br>• Pupils will develop being able to interpret.<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to critique.<br><br>Wonder<br>• *I wonder how 3D items that I use are made using technology...*<br>• *I wonder how 3D items are made without technology...* |

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| | | Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Using technology to create 3D designs. |
| **Autumn Term 2** | **Spring Term 2** | **Summer Term 2** |
| Creating Media – Webpage creation<br><br>Core Knowledge<br>1. Pupils will know how to review an existing website and consider its structure.<br>2. Pupils will know how to plan the features of a website.<br>3. Pupils will know how to consider the ownership and use of images (copyright)<br>4. Pupils will know how to recognise the need to preview pages.<br>5. Pupils will know how to outline the need for a navigation path.<br>6. Pupils will know how to recognise the implications of linking to content owned by other people.<br><br>Hinterland Knowledge<br>• Pupils will know what is important in a website.<br>• Pupils will know how to create a website to appeal to their audience. | Data and Information – Spreadsheets<br><br>Core Knowledge<br>1. Pupils will know how to identify questions which can be answered using data.<br>2. Pupils will know that objects can be described using data.<br>3. Pupils will know how formulas can be used to produce calculated data.<br>4. Pupils will know how to apply formulas to data, including duplicating.<br>5. Pupils will know how to create a spreadsheet to plan an event.<br>6. Pupils will know how to choose suitable ways to present data.<br><br>Hinterland Knowledge<br>• Pupils will know how to create a formula for data specific to school.<br>• Pupils will collect and organise data based on their location. | Programming B – Sensing movement<br><br>Core Knowledge<br>1. Pupils will know how to create a program to run on a controllable device.<br>2. Pupils will know that selection can control the flow of a program.<br>3. Pupils will know how to update a variable with a user input.<br>4. Pupils will know how to use a conditional statement to compare a variable to a value.<br>5. Pupils will know how to design a project that uses inputs and outputs on a controllable device.<br>6. Pupils will know how to develop a program to use inputs and outputs on a controllable device.<br><br>Hinterland Knowledge<br>• Pupils will know how to update a program which can be used by others. |

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| Skills<br>• Pupils will develop being able to plan<br>• Pupils will develop being able to reason.<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to justify.<br>Wonder<br>• *I wonder what information is important in a website...*<br>• *I wonder what appeals to my audience...*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Creating their own website and evaluating others. | Skills<br>• Pupils will develop being able to identify.<br>• Pupils will develop being able to interpret.<br>• Pupils will develop being able to evaluate.<br>• Pupils will develop being able to critique.<br><br>Wonder<br>• *I wonder how to link data to my local area...*<br>• *I wonder how to create data for the school community…*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Producing data with a purpose. | • Pupils will know how to create a set of instructions about how to use the program.<br><br>Skills<br>• Pupils will develop being able to create.<br>• Pupils will develop being able to develop.<br>• Pupils will develop being able to explain.<br>• Pupils will develop being able to update.<br>• Pupils will develop being able to design.<br><br>Wonder<br>• *I wonder how to update a program which others can use...*<br>• *I wonder how to create instructions so that it's easy for others to follow...*<br><br>Experiences & Provocations<br>• Pupils will experience the curriculum by:<br>  ○ Designing a program and then writing instructions on how to use it. |
| Managing Online Information and an Online Reputation<br><br>Across all strands of the Computing Curriculum, and in multiple subjects, pupils will continuously develop their knowledge and understand the importance of staying safe when managing information and tools online.<br><br>Core Knowledge<br>• Pupils will know what a digital personality is | | |

- Pupils will know strategies to use to protect their 'digital personality' and online reputation
- Pupils will know how online anonymity can protect their online reputation
- Pupils will know they can encounter a range of things online including things we like and don't like
- Pupils will know they can encounter things online which are real or make believe / a joke
- Pupils will know they can get help if they see content that makes them feel sad, uncomfortable, worried or frightened
- Pupils will know how to get help from a trusted adult.