# Computing Curriculum Map KEPS 2026-27

Units to be used over the academic year to link, where possible, with current learning. Hyperlinks to each unit on NCCE website to ensure the most current lesson plans are used.

**Key:**

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| Computing Systems and Networks |
| Multimedia skills (Creating media) |
| Data and information |
| Programming |
| Online Safety |

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| **Beech class EYFS** | Barefoot Computing<br>▪ Awesome Autumn | Barefoot Computing<br>▪ Winter Warmers | Barefoot Computing<br>▪ Springtime | Barefoot Computing<br>▪ People who help us | Barefoot Computing<br>▪ Summer fun | Barefoot Computing<br>▪ Busy bodies |
| **Beech class (Year 1)** | Active Bytes Autumn 1 Year 1 | Active Bytes Autumn 2 Year 1 | Active Bytes Spring 1 Year 1 | Active Bytes Spring 2 Year 1 | Active Bytes Summer 1 Year 1 | Active Bytes Summer 2 Year 1 |
| | Computing systems and networks – Technology around us | Creating media – Digital painting | Creating media – Digital writing | Data and information – Grouping data | Programming A – Moving a robot | Programming B – Introduction to animation |
| | Develop your learners' understanding of technology and how it can help them. They will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly. | Explore the world of digital art and its exciting range of creative tools with your learners. Empower them to create their own paintings, while getting inspiration from a range of other artists. Conclude by asking them to consider their preferences when painting with, and without, the use of digital devices. | Promote your learners' understanding of the various aspects of using a computer to create and change text. Learners will familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing, and then they will consider the differences between using a | This unit introduces pupils to data and information. They will begin by using labels to put objects into groups, and labelling these groups. Pupils will demonstrate that they can count a small number of objects, before and after the objects are grouped. They will then begin to demonstrate their ability to sort objects into different groups, based on | This unit introduces learners to early programming concepts. Learners will explore using individual commands, both with other learners and as part of a computer program. They will identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. The unit is | This unit introduces learners to on-screen programming through ScratchJr. Learners will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Learners will also be |

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| | | | computer and writing on paper to create text. | the properties they choose. Finally, pupils will use their ability to sort objects into different groups to answer questions about data. | paced to ensure time is spent on all aspects of programming and builds knowledge in a structured manner. Learners are also introduced to the early stages of program design through the introduction of algorithms. | introduced to the early stages of program design through the introduction of algorithms. |
| | - 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 | - Use technology purposefully to create, organise, store, manipulate, and retrieve digital content | -Use technology purposefully to create, organise, store, manipulate, and retrieve digital content<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 | -Use technology purposefully to create, organise, store, manipulate, and retrieve digital content<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 | -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<br>-I can identify several possible solutions<br>- I can plan two programs<br>- I can use two different programs to get to the same place<br>-Recognise common uses of information technology beyond school | -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<br>-I can identify several possible solutions<br>- I can plan two programs<br>- I can use two different programs to get to the same place<br>-Recognise common uses of information technology beyond school |
| **Willow class -** | Active Bytes Autumn 1 Year 2 | Active Bytes Autumn 2 Year 2 | Active Bytes Spring 1 Year 2 | Active Bytes Spring 2 Year 2 | Active Bytes Summer 1 Year 2 | Active Bytes Summer 2 Year 2 |

| (Year 2/3) | Computing systems and networks – Technology around us | Creating media – Digital painting | Creating media – Digital writing | Data and information – Grouping data | Programming A – Moving a robot | Programming B – Introduction to animation |
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| | Develop your learners' understanding of technology and how it can help them. They will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly. | Explore the world of digital art and its exciting range of creative tools with your learners. Empower them to create their own paintings, while getting inspiration from a range of other artists. Conclude by asking them to consider their preferences when painting with, and without, the use of digital devices. | Promote your learners' understanding of the various aspects of using a computer to create and change text. Learners will familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing, and then they will consider the differences between using a computer and writing on paper to create text. | This unit introduces pupils to data and information. They will begin by using labels to put objects into groups, and labelling these groups. Pupils will demonstrate that they can count a small number of objects, before and after the objects are grouped. They will then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, pupils will use their ability to sort objects into different groups to answer questions about data. | This unit introduces learners to early programming concepts. Learners will explore using individual commands, both with other learners and as part of a computer program. They will identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. The unit is paced to ensure time is spent on all aspects of programming and builds knowledge in a structured manner. Learners are also introduced to the early stages of program design through the introduction of algorithms. | This unit introduces learners to on-screen programming through ScratchJr. Learners will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Learners will also be introduced to the early stages of program design through the introduction of algorithms. |
| | - 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 | - Use technology purposefully to create, organise, store, manipulate, and retrieve digital content | -Use technology purposefully to create, organise, store, manipulate, and retrieve digital content<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 | -Use technology purposefully to create, organise, store, manipulate, and retrieve digital content<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 | -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 | -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 |

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| | go for help and support when they have concerns about content or contact on the internet or other online technologies | | on the internet or other online technologies | on the internet or other online technologies | -I can identify several possible solutions<br>- I can plan two programs<br>- I can use two different programs to get to the same place<br>-Recognise common uses of information technology beyond school | the behaviour of simple programs<br>-I can identify several possible solutions<br>- I can plan two programs<br>- I can use two different programs to get to the same place<br>-Recognise common uses of information technology beyond school |
| **Ash class (Year 4/5)** | Active Bytes Autumn 1 Year 4 | Active Bytes Autumn 2 Year 4 | Active Bytes Spring 1 Year 4 | Active Bytes Spring 2 Year 4 | Active Bytes Summer 1 Year 4 | Active Bytes Summer 2 Year 4 |
| | Computing Systems and the Network -- The Internet (4) | Creating media – audio production (4) | Programming A – Repetition in shapes (4) | Creating media – Digital photography (2) | Programming – Introduction to MakeCode and micro:bit | Programming B – Repetition in shapes (4) |
| | Learners will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or | Learners will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, learners will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, learners will evaluate their work and give feedback to their peers. This | Learners will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language. This unit is the first of the two programming units and looks at repetition and loops within programming. | Learners will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real. | This unit provides a pathway through six projects, ideal for getting started with the micro:bit. Students will develop their use of some core computing concepts through coding and making practical projects.<br><br>Projects include a name badge, animation, using inputs and outputs to make an emotion badge, using sensors to make step counters and nightlights, and finally combining skills from previous lessons to make a rock, paper, scissors game. | Learners will explore the concept of repetition in programming using the Scratch environment. The unit begins with a Scratch activity similar to that carried out in Logo in Programming unit A, where learners can discover similarities between two environments. Learners look at the difference between count-controlled and infinite loops and use their knowledge to modify existing animations and games using repetition. |

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| | reliable it is, and understand the consequences of false information. | unit uses 'school news' as a context for the podcasts, but this can be changed to suit your curriculum. | | | | Their final project is to design and create a game which uses repetition, applying stages of programming design throughout. |
| | Learners will explore how a network can share messages with another network to form the internet.<br>Learners will describe the parts of a network and how they connect to each other to form the internet.<br>Learners will explore what can be shared on the World Wide Web and where websites are stored.<br>Learners will analyse a website and identify the key parts<br>Learners will explore who owns the content on the World Wide Web (or 'web' for short).<br>Learners will gain an appreciation of the fact that not everything they see on the internet is true, honest, or accurate.<br>Finally, learners will complete a practical activity, demonstrating how quickly information can spread beyond their control. | Learners will identify the input devices used to record sound and output devices needed to listen to it. They will then record their voices using a computer and reflect on what makes a good audio recording.<br>Learners will also listen to a range of podcasts and identify the features of a podcast. They will be introduced to the job of a recording engineer.<br>Learners will record their voices and then import and align sound effects to create layers in their recordings.<br>Learners will record the voice tracks for their podcast. They will review their recordings and re-record if necessary. Learners will edit, trim, and align their voice recordings.<br>Learners will develop their podcast further by adding content such as sound effects and background music. The audio will be layered with their existing voice recordings and exported as an audio file. | Pupils will learn the basic Logo commands and will use their knowledge of them to read and write code. Learners will create algorithms (a precise set of ordered instructions, which can be turned into code) for their initials. They will then implement these algorithms by writing them in Logo commands to draw the letter. They will debug their code by finding and fixing any errors that they spot.<br>Learners will first look at examples of patterns in everyday life. They will recognise where numbers, shapes, and symbols are repeated, and how many times repeats occur. They will create algorithms for drawing a square, using the same annotated diagram as in Lesson 2.<br>Learners will work with count-controlled loops in a range of contexts. First, they will think about a real-life example, then they will move on to using count-controlled loops in | Learners explore taking photographs in both portrait and landscape formats and explore the reasons why a photographer may favour one over the other.<br>Learners discover what constitutes good photography composition and put this into practice by composing and capturing photos of their own.<br>The concept of light and focus will be introduced as further important aspects of good photography composition. They will investigate the effect that good lighting has on the quality of the photos they take, and explore what effect using the camera flash and adding an artificial light source have on their photos. They also learn how the camera autofocus tool can be used to make an object in an image stand out.<br>Learners are introduced to the image editing software and use the 'Adjust' tools to change the colour effect of an image. | Gain practical skills for creating, testing, and transferring code to micro:bits.<br>Understand that computers need instructions in a sequence, also known as algorithms, and that these are written as programs in code, a language the computer can understand.<br>Learn how sequences and loops can be used to make animations and control programs.<br>Gain practical experience and understanding of inputs, outputs, and variables in real-world contexts.<br>Learn how logic ('if…then' instructions) and sensors combine to make a simple control system.<br>Combine skills and knowledge gained through the previous lessons to create computer simulations of real-world games of chance.<br>Evaluate what they have made. | Learners look at real-life examples of repetition and identify which parts of instructions are repeated. Learners then use Scratch, a block-based programming environment, to create shapes using count-controlled loops. They consider what the different values in each loop signify, then use existing code to modify and create new code, and work on reading code and predicting what the output will be once the code is run.<br>They will look at different types of loops: infinite loops and count-controlled loops. They create designs for an animation of the letters in their names.<br>After programming, learners then evaluate their work, considering how effectively they used repetition in their code. |

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| | | Learners will evaluate their own podcasts and that of others. After looking at the evaluation, learners will decide if they can improve their podcast and then make any changes they have chosen. | regular 2D shapes. They will trace code to predict which shapes will be drawn, and they will modify existing code by changing values within the code snippet. Learners will focus on decomposition. They will break down everyday tasks into smaller parts and think about how code snippets can be broken down to make them easier to plan and work with. Learners will apply the skills that they have learnt in this unit to create a program containing a count-controlled loop. | | | They will look at an existing game and match parts of the game with the design. They will look at a model project that uses repetition. They then design their own games based on the model project, producing designs and algorithms for sprites in the game.<br>They follow their algorithms, fix mistakes, and refine designs in their work as they build. They evaluate their work once it is completed, and showcase their games at the end. |
| **Oak class (Year 5/6)** | ActiveBYTE Year 5: Autumn Term A 'I am kind and responsible' Evaluating content | ActiveBYTE Year 5: Autumn Term B 'I am kind and responsible' Kindness | ActiveBYTE Year 5: Spring Term A 'I am Safe and Secure' Privacy | ActiveBYTE Year 5: Spring Term B 'I am Safe and Secure' Relationships | ActiveBYTE Year 5: Summer Term A 'I am healthy' Self-image | ActiveBYTE Year 5: Summer Term B 'I am Healthy' Lifestyle choices |
| | Children will<br>• Consider video of spaghetti harvest<br>• Practise advanced search techniques<br><br>• Create a class Online Safety Agreement / Responsible use of technology agreement | Children will<br>• Use drama to explore scenarios which may not obviously be classed as Cyberbullying<br>• Consider who is a bully<br><br>• Generate a definition of Cyberbullying and agree actions to deal with it | Children will<br>• Watch Episode 1 of CEOP's 'Play Like Share' as an introduction to this focus<br>• Watch an NSPCC video to illustrate the potential risks of sharing a nude photograph online<br>• Role play flash-forward situations to explore potential outcomes of posting a photograph online • Reflect on how | Children will<br>• Watch an animated film about online safety called 'Play Like Share' from Thinkuknow, the NCA-CEOP Command's education programme.<br><br>• Use a range of activities to explore the difference between a 'real or 'online only' friend, including tactics which online friends | Children will<br>• Experience a range of videos and photographs which 'faked' or have been altered<br>• Watch a selection of videos and try to work out whether or not they are real<br><br>• Consider how the media, including people on social media, use digitally altered photos | Children will<br>• Learn about how advertising is used to persuade consumers<br>• Complete challenges to understand how advertising is used on the internet<br><br>• Use what they learn to create their own adverts (Follow-up task) |

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| | | | these consequences could have been avoided | may use to manipulate feelings and behaviour | and videos and how these can make us feel about ourselves. | |
| | Computing systems and networks – Communication | Creating media – 3D modelling | Creating media – web page creation | Data and information - spreadsheets | Programming A – variables in games | Programming B - Sensing |
| | In this unit, the class will learn about the World Wide Web as a<br>During this unit, learners will<br>develop their knowledge and understanding of using<br>This unit introduces learners<br>to the creation of websites<br>for a chosen purpose.<br>This unit introduces the learners to spreadsheets. They will be supported in<br>This unit explores the concept of variables in programming through<br>This unit is the final KS2 programming unit and brings communication tool. First, they will learn how we find information on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines. | During this unit, learners will develop their knowledge and understanding of using a computer to produce 3D models. Learners will initially familiarise themselves with working in a 3D space, including combining 3D objects to make a house and examining the differences between working digitally with 2D and<br>3D graphics. Learners will progress to making accurate 3D models of physical objects, such as a pencil holder, which include using 3D objects as placeholders. Finally, learners will examine the need to group 3D objects, then go on to plan, develop, and evaluate their own 3D model of a photo frame. | This unit introduces learners<br>to the creation of websites for a chosen purpose. Learners identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process learners pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths. | This unit introduces the learners to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Learners will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Learners will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them. Learners will use spreadsheets to plan an event and answer questions. Finally, learners will create graphs and charts, and evaluate their results in comparison to questions asked. | This unit explores the concept of variables in programming through games in Scratch. First, pupils will learn what variables are, and relate them to real-world examples of values that can be set and changed. Pupils will then use variables to create a simulation of a scoreboard.<br>In Lessons 2, 3, and 5, which follow the Use Modify-Create model, pupils will experiment with variables in an existing project, then modify them, then they will create their own project. In Lesson 4, pupils will focus on design. Finally, in Lesson 6, pupils will apply their knowledge of variables and design to improve their game in Scratch. | This unit is the final KS2 programming unit and brings together elements of all the four programming constructs: sequence from year 3, repetition from year 4, selection from year 5 and variables, introduced in year 6, programming A. It offers learners the opportunity to use all of these constructs in a different, but still familiar environment whilst also utilising a physical device - the micro:bit. The unit begins with a simple program which learners build in and test in the programming environment before transferring it to their micro:bit. Learners then take on three new |

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| | They will then investigate different methods of communication, before focusing on internet-based communication. Finally, they will evaluate which methods of internet communication to use for particular purposes. | | | | | projects in lessons 2, 3 and 4, with each lesson adding more depth. |
| | -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and -Use search technologies effectively, appreciate how results are selected and ranked, and be -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve -Design, write and debug programs | 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 | 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 | -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 | 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 -Select, use and combine | 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 -Select, use and combine a variety of software (including internet services) on a |

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| | that accomplish specific goals, including problems by decomposing them into smaller parts - 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 | | | | 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 | 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 |