



Curriculum Computing - Whole School

CARE **ACHIEVE** **BELIEVE**





Curriculum Computing Rationale

Intent:	<p>At Peover Superior, we provide children with high-quality Computing lessons which prepare them for their present and future life in the digital world. Now more than ever, it is vital that children become digitally literate so that they can use and create a range of programs, systems and content.</p> <p>Through effective use of Purple Mash and a range of other high-quality software and resources, children are taught how to be confident and competent with a range of technologies as well as using them responsibly and creatively. Online Safety is a fundamental part of our Computing lessons so children can recognise the benefits and risks of using technology; confidently explain how they should conduct themselves; outline how they can protect themselves from inappropriate content; identify how to deal with unwanted contact and identify the dangers of online commerce.</p> <p>We make effective links between Computing and other areas of the curriculum such as Mathematics, Science and Design and Technology so that children's learning can be applied and deepened. Through high-quality Computing from Early Years to Year 6, we aim to develop children's logical thinking, problem-solving and analytical skills which are transferable to other areas of the curriculum and valuable for adult life.</p>
Implementation:	<p>In our weekly Computing lessons, children progressively develop their computational knowledge and skills. Opportunities are provided for revisiting and overlapping skills to ensure children are secure by the end of each key stage. Children's coding and communication skills are prioritised in EYFS and KS1 so that have solid foundations to build upon in KS2. As well as this, children utilise technology in other areas of the curriculum which allows them to apply their computational skills</p> <p>Online Safety is regularly taught throughout all Computing units to ensure our pupils become responsible and knowledgeable users of technology. Additionally, through our stand-alone 'To Connect' units, children can deepen their knowledge of Online Safety, as well as allowing staff to respond to current trends and incidents that have arisen. Each year, children participate in Safer Internet Day and Anti-bullying Week which ensures Online Safety maintains a high profile.</p>
Impact:	<p>We conduct pre- and post-assessments at the beginning and end of our Computing units to ascertain children's knowledge and proficiency with the focus area of Computing. Pre-assessments provide teachers with a clear picture of children's knowledge and skills so that subsequent lessons can be tailored to the cohort's needs. Post-assessments show the progress children have made from their starting points and help to formulate end of year judgements for Computing attainment. Staff judgements are moderated through discussion with the Computing Lead and staff moderation meetings.</p>



Curriculum Map

Computing - Whole School

Cycle A

	Autumn 1 - To Communicate	Autumn 2 - To Code	Spring 1 - To Connect	Spring 2 - To Collect	Summer 1 - To Code	Summer 2 - To Communicate
EYFS	To Connect Technology Around Us & Hardware	To Communicate Mouse, Trackpad & Keyboard Skills	Safety & Privacy	To Communicate Drawing Skills, Sounds & Photography	Robots	Quizzes & Using Purple Mash
KS1 Yr1/2	Unit 1.6 Animated Stories	Unit 1.4 Lego Builders Kodu	Unit 1.9 Technology Outside School Unit 1.1 Online Safety (Lessons 1 & 2) Unit 2.2 Online Safety	Unit 1.2 Grouping and Sorting Unit 1.3 Pictograms Unit 2.4 Questioning	Unit 1.7 Coding	Unit 2.7 Making Music
LKS2 Yr3/4	Unit 4.6 Animation Unit 4.9 Making Music	To Communicate/To Code Unit 3.7 Simulations Unit 3:10 Micro:bits	Unit 4.2 Online Safety Unit 4.7 Effective Searching	Unit 3.6 Branching Databases Unit 3.8 Graphing	Unit 4.1 Coding	Unit 3.4 Typing Unit 3.5 Email
UKS2 Yr5/6	Unit 6.4 Blogging	Unit 5.1 Coding	Unit 6.2 Online Safety	Unit 5.4 Databases	To Communicate/To Code Unit 5.5. Game Creator	Unit 6.7 Quizzing



Curriculum Map

Computing - Whole School

Cycle B

	Autumn 1 - To Communicate	Autumn 2 - To Code	Spring 1 - To Connect	Spring 2 - To Collect	Summer 1 - To Code	Summer 2 - To Communicate/To Connect
EYFS	To Connect Technology Around Us & Hardware	To Communicate Mouse, Trackpad & Keyboard Skills	Safety & Privacy	To Communicate Drawing Skills, Sounds & Photography	Robots	Quizzes & Using Purple Mash
KS1 Yr1/2	Unit 2.8 Presenting Ideas	Unit 1.5 Maze Explorers Kodu	Unit 2.5 Effective Searching Additional online safety lessons linked to content, contact, conduct and commerce.	Unit 1.8 Spreadsheets Unit 2.3 Spreadsheets	Unit 2.1 Coding	To Communicate Unit 2.6 Creating Pictures
LKS2 Yr3/4	Unit 3.9 Presenting (MS PowerPoint)	Unit 3.1 Coding	Unit 3.2 Online Safety	Unit 3.3 Spreadsheets Unit 4.3 Spreadsheets	Unit 4.5 Logo Unit 4:11 Micro:bits	To Connect Unit 4.8 Hardware Investigators
UKS2 Yr5/6	Unit 5.8 Word Processing with MS Word	Unit 6.1 Coding	Unit 5.2 Online Safety	Unit 5.3 Spreadsheets Unit 6.9 Spreadsheets	Unit 6.5 Text Adventures	To Connect Unit 6.8 Binary



Curriculum Map Computing - EYFS

EYFS (yearly cycle)

Autumn 1 - To Connect Technology Around Us & Hardware	Autumn 2 - To Communicate Mouse, Trackpad & Keyboard Skills	Spring 1 - To Connect Safety & Privacy	Spring 2 - To Communicate Drawing Skills, Sounds & Photography	Summer 1 - To Code Robots	Summer 2 - To Communicate Quizzes & Using Purple Mash
<p>Composite</p> <p>To know the technological devices around us. To know the hardware we use and how to take care of it.</p>	<p>Composite</p> <p>To know how to use a computer mouse and trackpad to navigate around a screen. To know how to use a computer keyboard for typed work.</p>	<p>Composite</p> <p>To know how to use technology kindly and safely.</p>	<p>Composite</p> <p>To know how to use the different functions of 2Paint. To know how to create music and record sounds using Purple Mash. To know how to take and upload photos.</p>	<p>Composite</p> <p>To know how to follow and create instructions for floor robots.</p>	<p>Composite</p> <p>To know how to answer a variety of question types in 2Quiz. To know how to independently login to Purple Mash to create, open and save work.</p>
<p>Components</p> <ul style="list-style-type: none"> To know what technology is used at home. To know what technology is used outdoors. To know what technology is used in the world around us. To understand why having clean hands is important when using shared devices. To know why it is not sensible to eat or drink whilst using a device. To know why devices, plugs and wires need to be taken care of. To know how to carefully carry a device to a different location. To know how to use devices with care. To know the parts of a computer and what they are for. 	<p>Components</p> <ul style="list-style-type: none"> To know the correct buttons to place fingers on when using a computer mouse. To know how to make the cursor move to a certain location on a computer screen using the computer mouse or trackpad. To know the correct mouse button to click when playing games on the computer. To know how to accurately click and drag objects on the screen using a computer mouse or trackpad. To know the mouse roller scrolls up and down a page. To know all the alphabet letters and numbers are on a keyboard. To know the spacebar puts spaces between words in typed work. To know how to correct typed work using the delete keys. To know how to capitalise letters using CAPS LOCK and SHIFT. To know how to use ENTER to input instructions. To know the arrow keys help us to move around the screen. 	<p>Components</p> <ul style="list-style-type: none"> To know work on a computer belongs to someone. To know what it means for something to be private. To explain how our bodies feel when we are not comfortable with something. To know who can help us when we are feeling worried. To know how to show kindness to others. To know activities which can be chosen in our free time to keep us healthy. 	<p>Components</p> <ul style="list-style-type: none"> To know how to select colours when painting on the computer. To know the pen width can be changed on the computer. To know there are different tools to draw with on the computer. To know the undo button can be used to delete recently added marks on a drawing. To know how to use the erase button. To know how to draw on a touchscreen device or using computer mouse. To know how to make music using a computer. To know sound effects can be added to my work. To know my voice can be recorded on a device and played back. To know how to take photos on a digital device. To know how to use the webcam in Mini Mash. To know how to open photos in Purple Mash. 	<p>Components</p> <ul style="list-style-type: none"> To explain where a toy vehicle is moving whilst moving it. To describe a route taken by a toy vehicle. To know how to follow directions to make a route for a toy vehicle. To know how to plan a route for a toy vehicle. To know how to follow a plan for where the toy vehicle should move. To know how to program a floor robot to move forwards, backwards or rotate one step at a time. To know how to program a floor robot to complete a 3-step route. To know where a floor robot will end up when given instructions for a 2 or 3-step route. To know how to plan a route for a floor robot and carry out these instructions one step at a time. To know how to plan a route for a floor robot and carry out these instructions more than one step at a time. 	<p>Components</p> <ul style="list-style-type: none"> To know what a quiz is. To know how to complete a multiple-choice quiz. To know how to complete a sequencing quiz. To know answers can be typed for some quiz questions. To know how to complete a cloze quiz. To know how to complete a matching quiz. To know how to complete a sorting and sequencing quiz. To know how to get to the Purple Mash page on a device at school and at home. To know how to login to Purple Mash/Mini Mash using the shortcut icon. To know how to login to Purple Mash/Mini Mash using my username and password. To know how to save work in my own tray/folder on Purple Mash/Mini Mash. To know how to open previously saved work. To know how to find and complete 2Dos set by the teacher.
<p>Key Vocabulary: Technology, devices, shared devices, plugs, wires, screen, keyboard, keys, buttons, computer mouse, trackpad.</p>	<p>Key Vocabulary: Computer mouse, button, cursor, screen, trackpad, click, drag, mouse roller, scroll, keyboard, keys, spacebar, CAPS LOCK, SHIFT, delete, arrow keys.</p>	<p>Key Vocabulary: Owner, trusted adult, private, personal information, username, password, screen time.</p>	<p>Key Vocabulary: Select, pen width, tools, undo, delete, erase, touchscreen, computer mouse, sound effects, record, webcam.</p>	<p>Key Vocabulary: Toy vehicle, route, directions, left, right, forwards, backwards, turn, rotate, program, floor robot, 1-step, 2-step, 3-step, instructions.</p>	<p>Key Vocabulary: Quiz, multiple-choice, sequencing, type, cloze, matching, sorting, device, shortcut, icon, desktop, login, username, password, folder, save, open, 2Do.</p>



Curriculum Map

Computing - Overview KS1

Cycle A

Autumn 1 - To Communicate Unit 1.6 Animated Stories	Autumn 2 - To Code Unit 1.4 Lego Builders & Additional practice on Kodu	Spring 1 - To Connect Unit 1.9 Technology Outside School Unit 1.1 Online Safety (Lessons 1 & 2 only) Unit 2.2 Online Safety	Spring 2 - To Collect Unit 1.2 Grouping and Sorting Unit 1.3 Pictograms Unit 2.4 Questioning	Summer 1 - To Code Unit 1.7 Coding	Summer 2 - To Communicate Unit 2.7 Making Music
<p>Composite</p> <p>To know how to use technology purposefully to create and save animated stories.</p>	<p>Composite</p> <p>To know how to write and test simple algorithms.</p>	<p>Composite</p> <p>To know common uses of information technology beyond school.</p>	<p>Composite</p> <p>To know how to use data software purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>Composite</p> <p>To know how to plan, create, execute, analyse and debug a simple program.</p>	<p>Composite</p> <p>To know how to use technology creatively to explore, edit, record and combine sounds.</p>
<p>Components</p> <ul style="list-style-type: none"> To know images can be created within e-book software. To know animations can be included in e-books. To know e-book software allows pages to be added and work to be saved and/or overwritten. To know audio such as sound effects, voice recordings and music can be included within e-books. To know backgrounds can be included in e-books. To know text fonts and sizes can be changed in e-books. To know the copy and paste features in e-book software can be used to create additional pages. 	<p>Components</p> <ul style="list-style-type: none"> To know to achieve a specific effect when building something, accurate instructions must be followed. To know computer programs need precise instructions called algorithms. To know outcomes will vary if instructions are vague. To know the order of instructions for a task affects the results. To know correcting errors in an algorithm or program is called debugging. 	<p>Components</p> <ul style="list-style-type: none"> To know technology is used within and outside of school. To know it is important to log into a website safely and the importance of keeping passwords safe. To know many online sites have an area for a user's work that is accessible only to the user. To know searches can be refined so it is easier to find something. To know work can be shared in a variety of ways. To know email is a way of communicating. 	<p>Components</p> <ul style="list-style-type: none"> To know items can be sorted using a range of criteria. To know computers can be used to sort on-screen objects. To know data is a collection of information used to help answer questions. To know a pictogram is a visual way of representing data. To know users can interrogate data represented in pictograms. To know pictograms in 2Count enables users to modify and share data. To know information can be separated using yes/no questions. To know a binary tree is a simple way of sorting information. To know databases are a computerised system that make it easy to search, select and store information. To know databases can be searched using simple or complex questions. 	<p>Components</p> <ul style="list-style-type: none"> To know computer programs work by following instructions called algorithms. To know algorithms need to be clear and concise. To know there are objects and action code block in 2Code and users can make simple programs using these. To know each single instruction in an algorithm is called a command. To know an event is something that makes a block of code run. To know event, object and action code blocks can be used together. To know when code is run this is known as code being executed. To know debugging is when we fix code that isn't working how it was designed to. To know scenes can be made using backgrounds and objects which can be changed and modified. 	<p>Components</p> <ul style="list-style-type: none"> To know music can be made digitally using programs like 2Sequence. To know sounds can be incorporated into music programs to make a melody. To know the tempo and volume of a musical composition can be altered. To know additional features, such as changing the number of bars or looping a composition, are available in music programs. To know sounds can be recorded and incorporated into a composition.
<p>Key Vocabulary: Animation, background, clipart, gallery, e-book, edit, font, sound, sound effect, text</p>	<p>Key Vocabulary: Algorithm, code, debugging, instructions, program</p>	<p>Key Vocabulary: Computer, technology, alert, button, device, file name, icon, log in, log out, menu, notification, private, password, saving, search, attachment, digital footprint, email, filter, internet,</p>	<p>Key Vocabulary: Criteria, groups, sort, algorithm, collect, compare, data, pictogram, record results, binary tree, database, field, search.</p>	<p>Key Vocabulary: Action, code, event, algorithm, command, execute, background, debug, debugging, input. Instructions, properties, scene, object, run, sound, output, scale, when clicked.</p>	<p>Key Vocabulary: Compose, sound effect, soundtrack, speed, tempo, volume, tune, beat, note</p>



Curriculum Map

Computing - Overview KS1

Cycle B

Autumn 1 - To Communicate Unit 2.8 Presenting Ideas	Autumn 2 - To Code Unit 1.5 Maze Explorers	Spring 1 - To Connect Unit 2.5 Effective Searching & additional online safety lessons linked to content and conduct.	Spring 2 - To Collect Unit 1.8 Spreadsheets Unit 2.3 Spreadsheets (from Lesson 2)	Summer 1 - To Code Unit 2.1 Coding	Summer 2 - To Communicate Unit 2.6 Creating Pictures
<p>Composite To know how to use technology to create digital content in suitable formats.</p>	<p>Composite To know how to create and debug simple programs within 2Go.</p>	<p>Composite To know what a digital footprint is and its implications. To know how to use a search engine safely and effectively.</p>	<p>Composite To know how to use spreadsheet software to create, organise and manipulate data.</p>	<p>Composite To know how to create and debug when/if and timer programs in 2Code.</p>	<p>Composite To know how to use technology creatively to explore, create and edit images.</p>
<p>Components</p> <ul style="list-style-type: none"> To know digital content can be presented in many forms, including e-books, concept maps and digital quizzes. To know quizzes can be made using programs such as 2Quiz. To know key areas and features of 2Quiz such as introductory screen, delete, clone, add questions, preview and play quiz. To know digital content should be presented using a suitable format. To know digital content in one format can be re-used in other formats. 	<p>Components</p> <ul style="list-style-type: none"> To know a user can move a character in 2Go around a screen using direction keys. To know onscreen direction keys have eight possible directions, including diagonal movements. To know number keys can be combined with direction keys to give accurate instructions. To know each square on a grid relates to 1 unit. To know lists of directional instructions can be made in 2Go and these are known as algorithms. To know algorithms can be changed to improve instructions which is known as debugging. 	<p>Components</p> <ul style="list-style-type: none"> To know the Internet is a global network of connected computers around the world. To know the World Wide Web refers to the documents and pages someone sees when using a browser. To know websites can be found using a browser that contains a search engine. To know search engines use millions of people's digital footprints to help provide more accurate results. To find results on a search engine we need to search effectively. To know how to keep personal data safe online. 	<p>Components</p> <ul style="list-style-type: none"> To know there are specific features and purposes of a spreadsheet to navigate around and enter data. To know features in spreadsheets allow users to insert content such as images into a cell. To know cell content can be locked or moved. To know the Speak and Count tools serve a specific purpose in 2Calculate. To know the keyboard shortcuts for copy, paste and cut. To know the totalling tool counts all the cells behind it. To know a spreadsheet can automatically work out a total. To know data in a table can be edited and presented in a graph. 	<p>Components</p> <ul style="list-style-type: none"> To know steps in an algorithm must be followed in order to achieve the intended outcome. To know code can be created that detects when two objects have collided and have an action associated with it. To know timers can be introduced into programs to make parts of the program run after a set time. To know a computer program can include different object types and these will have properties which can be modified. To know events in computer programs cause a block of code to be run. To know bugs in computer programs refer to bits of code that are stopping a program from working how it was intending. To know debugging is the process of looking for problems in code, fixing them and repeatedly testing them. 	<p>Components</p> <ul style="list-style-type: none"> To know computer drawing programs contain palettes for a range of shapes and colours. To know computer drawing programs may have a choice of painting effects to help make pictures. To know the size of an onscreen painting tool brush stroke can be manipulated. To know the intensity of colours can be manipulated. To know outline features in drawing programs can help a user to form paintings. To know fill tools can speed up the process of colouring enclosed areas in a digital painting. To know pattern tools can be used to create repeating patterns and manipulate how a pattern is arranged. To know an eCollage template lets a user create stamps to add pictures or build up a picture.
<p>Key Vocabulary: E-book, fact file, fiction, non-fiction, mind map, concept map, node, presentation, quiz, clone, preview.</p>	<p>Key Vocabulary: Algorithm, challenge, command, direction, instruction, left, right, route, undo, unit.</p>	<p>Key Vocabulary: Digital footprint, domain, Internet, network, search engine, web address, webpage, World Wide Web, website.</p>	<p>Key Vocabulary: Button, cell, clipart, column, count tool, data, delete, image, lock cell, move cell, row, speak tool, spreadsheet, value, block graph, copy, drag, equals tool, table.</p>	<p>Key Vocabulary: Action, algorithm, background, bug, button, click events, collision detection, command, debug, debugging, event, execute, implement, interaction, interval, object, output, properties, run.</p>	<p>Key Vocabulary: Style, outline, fill, palette, pattern, repeating patterns, pointillism, impressionism, surrealism,</p>



Curriculum Map

Computing - Overview LKS2

Cycle A

Autumn 1 - To Communicate Unit 4.6 Animation/ Unit 4.9 Making Music	Autumn 2 -To Communicate/To Code Unit 3:7 Simulations Unit 3:10 Micro:bits	Spring 1 - To Connect Unit 4:2 Online Safety Unit 4:7 Effective Searching	Spring 2 - To Collect Unit 3:6 Branching Databases Unit 3:8 Graphing	Summer 1 - To Code Unit 4:1 Coding	Summer 2 - To Communicate/To Connect Unit 3.4 Typing/Unit 3.5 Email
<p>Composite</p> <p>To know how to select, use and combine a variety of software to create animations and compose music.</p>	<p>Composite</p> <p>To know how to use a variety of software to analyse and evaluate information. To know how to write programs which control the micro:bit and work with various forms of input and output.</p>	<p>Composite</p> <p>To know how to be responsible digital citizens. To know how to use search technologies effectively and evaluate the reliability of digital content.</p>	<p>Composite</p> <p>To know how to use software to design branching databases. To know how to select and use software to present data in a range of formats.</p>	<p>Composite</p> <p>To know how to use sequence, selection and repetition when designing and debugging programs.</p>	<p>Composite</p> <p>To know how to use typing software efficiently to create text. To know how to use emailing software to share content and communicate with others.</p>
<p>Components</p> <ul style="list-style-type: none"> To know animations can be created with the help of technology. To know onion skinning can be used to make the animation process more efficient. To know sound can be added to animation. To know the term 'stop frame animation' and create an example of this. To know a melodic phrase can be created using music software. To know an electronic piece of music contains the key musical elements, such as pitch, rhythm and tempo and texture. To know composed music can be added to an animation. To know content can be shared to a class blog. 	<p>Components</p> <ul style="list-style-type: none"> To know what simulations are and that they can represent real or imaginary situations. To know the purpose of simulations. To know a simulation can be used to try out different options and test predictions. To know how to work through and evaluate a more complex simulation. To know the micro:bit is a tiny computer which needs instructions in code to make it work. To know how to make code that the micro:bit can understand and then transfer it to the micro:bit. To know how to code a micro:bit to show animations on its LEDs. To know the key inputs and outputs such as accelerometer and LED display. To know how to create code that generates sound outputs based on different movement gestures. 	<p>Components</p> <ul style="list-style-type: none"> To know how people can protect themselves from online identity theft. To know that information put online leaves a digital footprint or trail which can aid identity theft. To know risks and benefits of installing software including apps. To know that plagiarism is copying the work of others and presenting it as your own. To know appropriate behaviour when participating and contributing to collaborative online projects. To know the positive and negative influences of technology on health and the environment. To know the importance of balancing game and screentime with other parts of life. To know where to locate information on the search results page. To know how to search effectively to find out information. To know whether an information sources is true and reliable. 	<p>Components</p> <ul style="list-style-type: none"> To know how to sort objects using just 'yes' or 'no' questions. To know how to complete a branching database using 2Question. To know how to select and save appropriate images. To know how to create a branching database and debug any errors. To know how to enter data into a graph and answer graphical questions. To know how to present results in a range of graphical formats. 	<p>Components</p> <ul style="list-style-type: none"> To begin to understand selection in computer programming. To know how an IF statement works. To know how to use co-ordinates in computer programming. To know how the 'repeat until' command works. To know how an IF/ELSE statement works. To understand what a variable is in programming. To know how to create a playable game containing an if/else statement. 	<p>Components</p> <ul style="list-style-type: none"> To know the correct posture for typing. To know home, top and bottom row keys are areas on a keyboard where specific keys are located. To know to be an efficient typer a user's hands should be positioned correctly on a keyboard and both hands should work independently of each other. To know emails are electronic versions of letters which can be sent and received almost instantly. To know it is important to use email systems safely. To know pictures, documents and other file types can be attached to emails. To know address books can be made to store known contacts' email addresses. To know we can send an email to multiple people and sometimes these can be 'BCC'.
<p>Key Vocabulary:</p> <p>Animation, FPS (frames per second), frame, onion skinning, pause, stop frame, stop motion, BPM (beats per minute), melody, rhythm,</p>	<p>Key Vocabulary:</p> <p>Analysis, modelling, simulation, evaluation, decision, accelerometer, animation, data, gestures, hardware, image, infinite loop, input, LED, output, program, repeat</p>	<p>Key Vocabulary:</p> <p>AdFly, attachment, citation, collaborate, cookies, copyright, digital footprint, malware, phishing, plagiarism, ransomware, SMART rules, spam, virus, watermark, balanced view, '</p>	<p>Key Vocabulary:</p> <p>Binary tree, branching database, data, database, debugging,</p>	<p>Key Vocabulary:</p> <p>Action, alert, algorithm, background, button, code blocks, command, debug, debugging,</p>	<p>Key Vocabulary:</p> <p>Keys, space bar, address book, attachment, Blind Carbon Copy (BCC), Carbon Copy (CC), communication, compose, inbox, password,</p>



Curriculum Map

Computing - Overview LKS2

Cycle B

Autumn 1 - To Communicate Unit 3.9 Presenting (MS PowerPoint)	Autumn 2 - To Code Unit 3:1 Coding	Spring 1 - To Connect Unit 3:2 Online Safety	Spring 2 - To Collect Unit 3:3 Spreadsheets Unit 4:3 Spreadsheets	Summer 1 - To Code Unit 4:5 Logo (condense) Unit 4:11 Micro:bits	Summer 2 - To Connect Unit 4.8 Hardware Investigators
<p>Composite</p> <p>To know how to select and use MS PowerPoint software to create and display information.</p>	<p>Composite</p> <p>To know how to use sequence and repetition when designing and debugging programs with variables.</p>	<p>Composite</p> <p>To know how to be safe and responsible when using technology for content and contact.</p>	<p>Composite</p> <p>To know how to create a range of charts and graphs from data in a spreadsheet. To know how to use formulae and combine tools in spreadsheets.</p>	<p>Composite</p> <p>To know how to design, write and debug programs that create shapes and images in 2Logo. To know and explain how some simple algorithms for micro:bits work using logical reasoning and detect and correct errors in these.</p>	<p>Composite</p> <p>To know the component parts of hardware which allow computers to join and form a network</p>
<p>Components</p> <ul style="list-style-type: none"> To know presentation software is a way of creating and displaying information. To know simple presentations may include features such as textboxes, WordArt and images. To know more sophisticated presentations may include additional slides, video and audio. To know designs on slides can be changed. To know animations can be incorporated within a Microsoft PowerPoint presentation. To know transitions can be applied between slides. To know timings can be added to transitions and animations. 	<p>Components</p> <ul style="list-style-type: none"> To know what a flowchart is and understand how they can be used in computer programming. To understand that there are different types of timers and know the right type for a particular purpose. To know how to use the repeat command. To know the importance of nesting. To know how to design and create an interactive scene. 	<p>Components</p> <ul style="list-style-type: none"> To know what makes a safe password. To know methods for keeping passwords safe. To know how the Internet can be used in effective communication. To know how a blog can be used to communicate with a wider audience. To know the importance of thinking critically when looking at the content of websites. To know the meaning of age restriction symbols on digital media and devices. 	<p>Components</p> <ul style="list-style-type: none"> To know how to add and edit data in a table layout. To know the symbols more than, less than and equal to when comparing values. To know how to use 2Calculate to collect data and produce a variety of graphs. To know cell addresses can be used to describe a cell location in a spreadsheet. To know how to format cells as currency or decimal. To know how to use the formula wizard to calculate averages. To know how to combine tools to make spreadsheet activities. To know how to use a spreadsheet to model a real life situation. To know how to use formulas in 2Calculate. 	<p>Components</p> <ul style="list-style-type: none"> To know the structure of the coding language in 2Logo. To know how to input simple instructions in 2Logo. To know the Repeat function can be used in 2Logo to efficiently create letters and shapes. To know how to use and build procedures in 2Logo to create more complex shapes. To know how sensor inputs from the accelerometer can be used to detect movement. To know how variables can be used to keep track of things in a program. To know how inputs, outputs and computer code work together to make control systems. To know how 'IF/ELSE' instructions can be used to make different outputs happen according to different inputs. To know how to make a control system and game using more complex logical 'IF' conditional instructions. 	<p>Components</p> <ul style="list-style-type: none"> To know different parts make up a computer. To know different parts of a computer such as hard drive, RAM, network card etc. To know what is meant by hardware, components and peripherals. To know and describe the function of parts of a computer.
<p>Key Vocabulary:</p> <p>Animation, border properties, font formatting, layer, media, slide, slideshow, text box, transition, WordArt</p>	<p>Key Vocabulary:</p> <p>Action, alert, algorithm, background, bug, button, click event, code, collision detection event, command, debug, debugging, event, flowchart, implement, input, interval, nesting, object, predict,</p>	<p>Key Vocabulary:</p> <p>Appropriate, blog, inappropriate, password, personal information, internet, spoof, reputable source, permission, vlog, website, verify,</p>	<p>Key Vocabulary:</p> <p>Advance mode, bar graph, equals, data, cell address, rows, columns, less than, more than, pie chart, quiz tool, spin tool, spreadsheet, table, average, formula, budget, decimal place, format cell, formula wizard, line graph, percentage, random number tool, timer</p>	<p>Key Vocabulary:</p> <p>Debugging, grid, LOGO, LOGO commands, multi-line mode, pen down, pen up, prediction, procedure, repeat, run speed, SETPC, SETPS, accelerometer, light sensor, simulation, data, logc, variable, gestures, selection, infinite loop, sensor</p>	<p>Key Vocabulary:</p> <p>Components, CPU, graphics card, hard drive, input, motherboard, network card, output, peripherals, RAM, software</p>



Curriculum Map

Computing - Overview UKS2

Cycle A

Autumn 1 - To Communicate Unit 6.4 Blogging	Autumn 2 - To Code Unit 5:1 Coding	Spring 1 - To Connect Unit 6:2 Online Safety	Spring 2 - To Collect Unit 5:4 Databases	Summer 1 - To Communicate/To Code Unit 5:5 Game Creator	Summer 2 - To Communicate Unit 6.7 Quizzing
Composite To know how to select, use and combine a variety of software to design, create and edit blogs.	Composite To know how to solve problems in code by decomposing them into smaller parts. To know how to create programs which use functions and variables.	Composite To recognise acceptable and unacceptable online behaviour and know the benefits and risks of online relationships, location sharing services and unsecure sites.	Composite To use software to search and create databases which collect, evaluate and present information.	Composite To use 2DIY 3D to design and create a game which is playable.	Composite To know how to select, use and combine a variety of software to design and create quizzes.
Components <ul style="list-style-type: none"> To know a blog is an online vehicle to display thoughts and ideas in an informal style. To know it is important to plan the theme and content of a blog. To know the key features of a blog. To know the difference between a blog and blog post. To know people can contribute to blogs by adding their own posts. To know blog posts can be commented on by others. To understand the approval process for blogs and why this is important. 	Components <ul style="list-style-type: none"> To know code can be simplified. To know a simulation is a model that represents a real or imaginary situation. To know that the 'timer every' command can be used to make code repeat forever. To know what decomposition and abstraction are in computer science. To know what a function is and how functions work in code. To know what the different variable types are and how they can be used differently. To know how to create a string. To know what concatenation is and how it works. 	Components <ul style="list-style-type: none"> To know the benefits and risks of mobile devices broadcasting the location of a user. To know how to identify secure sites by looking for privacy seals of approval, e.g. padlock icon. To know a digital footprint leaves a trail online to show behaviour and this can have a negative impact. To know what is appropriate online behaviour and how this can minimise exposure to possible dangers, bullying and inappropriate behaviour. To know it is important to balance game and screen time with other parts of life. 	Components <ul style="list-style-type: none"> To know a database can be used to search for information. To know users can contribute to a collaborative database. To know what a database field is. To know databases can be created for a range of topics. 	Components <ul style="list-style-type: none"> To know it is important to plan out a game before commencing on making it. To know a game design program has specific functions for the designer to use. To know the design of characters and quest items is a key aspect of game creation. To know a finished game must be playable and possible for the player to complete. To know evaluation is important in game design so a game can be improved. 	Components <ul style="list-style-type: none"> To know a quiz should have a range of question types. To know there are a range of software tools for creating quizzes. To know a quiz can be made to test knowledge.
Key Vocabulary: Approval, archive, blog, blog post, collaborate, commenting, vlog.	Key Vocabulary: Abstraction, action, algorithm, concatenation, debug, debugging, decomposition, efficient, flowchart, event, function, input, object, output, nesting, properties, physical system, repeat, sequence, selection, simplify, timer, variable.	Key Vocabulary: Data analysis, digital footprint, inappropriate, location sharing, password, PEGI rating, phishing, print screen, screen time, spoof, secure websites,	Key Vocabulary: Arrange, avatar, chart, collaborative, data, database, field, group, record, database report, search, sort, statistics.	Key Vocabulary: Animation, image, texture, computer game, instructions, perspective, customise, interactive, evaluation, screenshot, playability.	Key Vocabulary: Audio, clone, cloze, preview



Curriculum Map

Computing - Overview UKS2

Cycle B

Autumn 1 - To Communicate Unit 5.8 Word Processing with MS Word	Autumn 2 - To Code Unit 6:1 Coding	Spring 1 - To Connect Unit 5:2 Online Safety	Spring 2 - To Collect Unit 5:3 Spreadsheets Unit 6:9 Spreadsheets	Summer 1 - To Code Unit 6:5 Text Adventures	Summer 2 - To Connect Unit 6.8 Binary
<p>Composite</p> <p>To know how to select and use MS Word software to design and create content and present data and information.</p>	<p>Composite</p> <p>To know how to use sequence, selection and repetition when designing games in 2Code.</p>	<p>Composite</p> <p>To know the impact of sharing digital content online and understand how risks can be minimised by safe, respectful and responsible use.</p>	<p>Composite</p> <p>To know how to use 2Calculate and MS Excel to collect, analyse, evaluate and present data.</p>	<p>Composite</p> <p>To know how to design, write and debug a text-adventure game in 2Create a Story.</p>	<p>Composite</p> <p>To know binary is how data in a computer is saved and used.</p>
<p>Components</p> <ul style="list-style-type: none"> To know a word processing tool can be used to create a range of documents. To know documents can be saved into a specific folder. To know images can be added to a document. To know images can be edited in Word using Word Wrap. To know the look of text within a document can be changed by altering the formatting and text style, adding headings and subheadings and using bullet points or numbered lists. To know hyperlinks can be added to a document to link to an external website. To know tables can be inserted into a document and these can be manipulated. To know a template can be used to create a document. 	<p>Components</p> <ul style="list-style-type: none"> To know how to design a playable game with a timer and a score. To know how to plan and use selection and variables. To understand how the launch command works. To know how to use functions and understand why they are useful. To understand how functions are created and called. To know to use flowcharts to create and debug code To know how to create a simulation of a room in which devices can be controlled. To understand how user input can be used in a program. To understand how 2Code can be used to make a text-adventure game. 	<p>Components</p> <ul style="list-style-type: none"> To know the impact that sharing digital content can have and use the SMART rules as a source of guidance for this. To know how to maintain secure passwords. To know care needs to be given when sharing content online. To know sources should be referenced in work. To know how to search the Internet and consider the reliability and validity of sources. To know different forms of communication are best used for specific purposes. 	<p>Components</p> <ul style="list-style-type: none"> To know a formula can be written in a spreadsheet to aid conversions. To know a spreadsheet tool can be used to investigate if a hypothesis is true. To know a spreadsheet can be used to model a real life problem. To know a spreadsheet can be created to support the organisation of real life events. To know the key features of a spreadsheet in MS Excel. To know formulae can be entered in MS Excel to make working more efficient. To know MS Excel can make complex data clear by manipulating the way it is presented. To know MS Excel can present data in a variety of graphs and charts. To know spreadsheets can solve a given problem. 	<p>Components</p> <ul style="list-style-type: none"> To know a text adventure is a computer game that uses text instead of graphics. To know that a concept map can be used to plan a text-based adventure game. To know how to make a story-based adventure using 2Create a Story. To know and understand given code for a text adventure game. To know debugging is a key part of coding and essential if code is to run properly. 	<p>Components</p> <ul style="list-style-type: none"> To know binary is a number system using only 1 and 0. To know 0 refers to off and 1 refers to on. To know all denary numbers can be represented in binary. To know the state of an object in a game can be represented using binary values.
<p>Key Vocabulary:</p> <p>Bulleted lists, caps lock, captions, copy and paste, copyright, creative commons, cursor, document, font, formatting, hyperlink, merge cells, page orientation, text wrapping, WordArt</p>	<p>Key Vocabulary:</p> <p>Action, algorithm, command, co-ordinates, event, decomposition, debugging, execute, run, flowchart, function, input, launch command, object, properties, output, predict, procedure, sequence, repeat, repeat until, selection, simulation, tab, timer, variable</p>	<p>Key Vocabulary:</p> <p>Citation, collaborate, communication, copyright, creative commons licence, encrypt, identity theft, ownership, malware, PEGI ratings, phishing, password, personal information, spoof, reliable source, SMART rules, validity</p>	<p>Key Vocabulary:</p> <p>Rows, spreadsheet, columns, data, format, formula, formula bar, advance mode, formula wizard, 'how many?' tool, totalling tool, variable, auto fit, cell, cell reference, chart, computational model, conditional formatting, delimiter, graph, horizontal axis, range, vertical axis, text wrapping.</p>	<p>Key Vocabulary:</p> <p>Text-based adventure, debug, debugging, sprite, selection, function, flow of control, step through.</p>	<p>Key Vocabulary:</p> <p>Base 2, bit, Base 10, digit, integer, transistor, switch, nibble, byte, kilobyte (KB), megabyte (MB), gigabyte (GB), terabyte (TB), machine code, variable.</p>