

Computing
Whole School Planning
Year 1

Themes	I Belong	Important People	Wonderful Weather	Farm to Fork	Transport	Festivals & Carnivals
Pathways	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview	Making Relationships B1 BSED Making sense of self B2 BSED Understanding the world B1 technology	Making Relationships B4 BSED Making sense of self B4 BSED	Cause & Effect: Uses a switch for a purpose B4 Technology	Cause & Effect: Seeks to acquire basic skills in turning on & operating some digital equipment e.g. musical toy B4 Technology	Cause & Effect: Shows interest in toys B3 Technology	Cause & Effect: Creating an effect using a touch screen (immersive) B3 Technology
Key knowledge	Computing approach: collaboration . begins to know how to play and work alongside peers	Computing approach: collaboration . begins to know how to play and work alongside peers	Computing approach: Creating . begins to know how objects 'behave' . begins to know and make sense of objects around them	Computing approach: Tinkering . begins to know that objects can 'react' to them . begins to know that 'objects' make sound and create light	Computing approach: Tinkering . begins to know that objects can 'react' to them . figures out that actions have consequences . begins to relate to real life e.g. playing house	Computing approach: Persevering . knowing that by not giving up, they can change / do things
Key skills	Computing approach: collaboration . begins to tolerate others nearby . begins to display an awareness of turn-taking and sharing	Computing approach: collaboration . continues to build upon turn-taking / sharing skills . remembers learned responses over a short period of time	Computing approach: Creating . begins to make things . checking and fixing things	Computing approach: Tinkering . uses switches for a purpose e.g. switching toys on and off	Computing approach: Tinkering . uses switches for a purpose e.g. switching toys on and off . turn taking skills, playing . exploring . changing things to see what happens	Computing approach: Persevering . not giving up
Foundations	Engagement model	Engagement model	Engagement model	Engagement model	Engagement model	Engagement model
Overview	Self & Emotions: awareness Develop an awareness of emotions F1 Indicates a personal need e.g. toilet / drink /	Self & Emotions: regulation Develops personal ability & awareness to regulate F1 Explores a new environment away from members of staff	Functional Movement: Gross Motor Skills Develops co-ordination F2 uses preferred hand when exploring objects e.g. threading, play dough, mark making	Sensory Develops an awareness of sound F1 makes a variety of noises in response to a picture e.g. sees car says vroom	Communication: attention skills Develop single and joint attention skills F2 demonstrates anticipation when specific equipment is	Communication: Attention skills Develop single and joint attention skills F2 follows simple commands with appropriate responses

	play with another peer or adult		(preferably objects with buttons/switches)		distributed e.g. iPad, smartboard	F2 completes a simple task
Key knowledge	<u>Computing Approach: Persevering</u> . begins to know basic emotions . begins to know that they need or want something	<u>Computing Approach: Persevering</u> . knows who can help them achieve desired outcomes	<u>Computing Approach: Abstraction</u> . begins to know that they need certain items / objects to create a desired outcome	<u>Computing Approach: Patterns</u> . to know the similarities between concrete resources and pictorial representation	<u>Computing concept: Decomposition</u> . starts to break big things down into smaller chunks e.g. pressing 'on' turns an object on	<u>Computing concept: Algorithms</u> . begins to recognise / know that things need to be done in a certain order
Key skills	<u>Computing Approach: Persevering</u> . recognises basic emotions (ZOR) . begins to tell an adult what they want or need using preferred method of communication	<u>Computing Approach: Persevering</u> . begins to not give up . communicates help in the preferred communication method	<u>Computing Approach: Abstraction</u> . begins to work out what is important and ignoring what is not important e.g. threading requires string and buttons	<u>Computing Approach: Patterns</u> . identifies a selection of everyday objects / items / people / animals . identifies an appropriate response e.g. visits Blue then sees picture of dog and responds with barking	<u>Computing concept: Decomposition</u> . hand to eye co-ordination . finger strength / pressure . recognises actions have consequences . treating technology carefully knowing it can be broken	<u>Computing concept: Algorithms</u> . follows simple 1 / 2 step instructions visually or verbally
Tiptoes	<u>E-Safety</u> <u>Follows Instructions</u> POS 2.1 POS 2.2	<u>E-Safety</u> <u>Develop understanding of computing & computing equipment – unplugged / plugged</u> POS 3.1 POS 3.2	<u>Computer Science</u> <u>Begins to show awareness of cause & effect</u> POS 1.1 POS 1.2 POS 1.3 <u>Recognises a range of switches</u> POS 2.1 POS 2.2 POS 2.3 POS 2.4	<u>Computer Science</u> <u>Recognises a range of switches</u> POS 2.1 POS 2.2 POS 2.3	<u>Information & Communication</u> <u>Begins to track & effect movement on a screen</u> POS 4.1 POS 4.2 POS 4.3 POS 4.4	<u>Information & Communication</u> <u>Begins to recognise different media sources</u> POS 3.1
Overview	<u>Social interactions</u> Follows a set of visual & auditory actions / instructions to co-operate with others more successfully	<u>Unplugged Computing</u> Engaging in unplugged and plugged computing activities / equipment.	<u>Using technology for a purpose</u> Cause and effect; following instructions <u>Exploration of a variety of toys with switches</u> Fans, walkie talkies,	<u>Recognition of digital art</u> Digital Art – smartboard, immersive room, whiteboard (exploration of free draw)	<u>ICT skills</u> Tracking & making marks on screen (iPad, smartboard, immersive)	<u>Media Sources</u> Recognising familiar people e.g. videos, photos
Key knowledge	<u>Computing Concept: Algorithms (instructions)</u> . begins to know that a course of actions / instructions needs to be	<u>Computing Approach: Tinkering (playing & exploring)</u>	<u>Computing Concept: Logical Reasoning</u> . knows what will happen next (anticipates)	<u>Computing Concept: Logical Reasoning</u> . knows what will happen next (anticipates)	<u>Computing Concept: Logical Reasoning</u> . knows what will happen next (anticipates)	<u>Computing Concept: Logical Reasoning</u> . to know that there are different media sources

	precise / followed in a specific order	. begins to know what equipment is needed for computing activities . knows that unplugged equipment won't work . knows not to touch plugs / sockets	. knows that what they do will cause an immediate effect . knows and can explain why something has happened	. knows that what they do will cause an immediate effect . knows and can explain why something has happened . explores technology in a new way	. knows that what they do will cause an immediate effect . knows and can explain why something has happened	. to know that different media sources can be used to represent people and places . to know that media sources can be used for a variety of communication purposes
Key skills	<u>Computing Concept: Algorithms (instructions)</u> . demonstrates good listening and looking . follows a set of simple actions / instructions at a specific time e.g. I can stop, start and wait when asked	<u>Computing Approach: Tinkering (playing & exploring)</u> . can retrieve and use relevant unplugged and plugged equipment with support . can name equipment e.g. keyboard, mouse . can link / sort equipment . demonstrates interest in onscreen activities	<u>Computing Concept: Logical Reasoning</u> . develop hand to eye co-ordination . begins to use objects appropriately . begins to use objects to problem solve	<u>Computing Concept: Logical Reasoning</u> . develop hand to eye co-ordination . uses technology for a purpose	<u>Computing Approach: Logical Reasoning</u> . explores pictures on a screen . touches specific images on a screen . tracks objects vertically across a screen . operates a switch at a specific time . tracks movement across a screen reacting at appropriate times	<u>Computing Concept: Logical Reasoning</u> . identify familiar people on photographs . identify familiar people on video clips . identify familiar places on a variety of media sources e.g. google earth, CHATTA . identify different types of media sources e.g. photographs, visual clips, audio clips, videos
Footsteps	<u>E-Safety</u> Indicates familiar people and begins to interact with them appropriately POS 1.1 POS 1.2 POS 1.5	<u>E-Safety</u> Demonstrates a basic understanding of right and wrong POS 2.1 POS 2.2 POS 2.3 POS 2.4 POS 2.5 POS 2.6	<u>Computer Science</u> Begins to demonstrate following and inputting simple instructions POS 2.7 POS 2.3	<u>Computer Science</u> Demonstrates an understanding of cause and effect POS 1.15 POS 1.16	<u>Information & Communication</u> Begins to develop keyboard skills to input information POS 1.2 POS 1.3 POS 1.4 POS 1.5 POS 1.6 POS 1.8 POS 1.10	<u>Information & Communication</u> Recognises and controls different media sources POS 3.1 POS 3.2 POS 3.3 POS 3.4
Overview	<u>Social Interactions</u> Develop understanding of self and social interactions	<u>Unplugged Computing</u> Engaging in unplugged activities linked ZOR, kind and unkind actions and rules of the classroom and school	<u>Develop awareness of Programming</u> Human beebots! Following / giving instructions for a specific purpose	<u>Predicting and refining actions (digital art)</u> Recognising that familiar actions produce predictable results Refines actions to produce better results	<u>ICT skills</u> Develops keyboard skills Adding text including numerals using a keyboard	<u>Media Sources</u> Exploring sounds and music
Key knowledge	<u>Computing approach: collaboration</u>	<u>Computing approach: collaboration</u>	<u>Computing concept: Algorithms</u>	<u>Computing approach: Creating</u>	<u>Computing Concept: Abstraction</u>	<u>Computing Concept: Logical Reasoning</u>

	. to know how to begin to interact with familiar people appropriately . to know how and when to use terms 'I' 'You' and 'Me' correctly <u>Computing concept:</u> <u>Logical reasoning</u> . to anticipate familiar people and situations	. to know what healthy rules of friendship are . to know what is socially unacceptable behaviour is . to know appropriate greetings and key socially accepted phrases . to know classroom and school rules . knows that what they do affects others	. to know what is important . to know what is not important	. to know that technology can be used to create things e.g. cards, poster . to know that technology can be used to convey information . to know that work can be saved and retrieved later on	. knows that keyboards can be used to input information on a screen . begins to know that keyboards are a key tool in conveying information . knows that using a keyboard is the same as writing . knows that letters on a keyboard can be grouped together to make words . knows that words on a keyboard can be grouped together to make sentences . knows that work can be saved and retrieved	. to know there are a variety of media sources . to know how to operate equipment successfully . to know that technology can be used to produce music
Key skills	<u>Computing approach:</u> <u>collaboration</u> . to call others by their names . to call others by their names before I talk to gain attention . to interact successfully in a small group (turn-taking, sharing) <u>Computing concept:</u> <u>Logical reasoning</u> . to follow school day routines / anticipate what happens next	<u>Computing approach:</u> <u>collaboration</u> . identifies right and wrong behaviours . identifies things that they are not allowed to do / can do . demonstrates rules of school . talks to adults when upset	<u>Computing concept:</u> <u>Algorithms</u> . to develop listening skills . to develop social interactions e.g. team work . to be able to attend and successfully follow instructions . to be able to attend and successfully give instructions	<u>Computing approach:</u> <u>Creating</u> . recognises and selects appropriate tools to use . checks and corrects work . begins to save work with support	<u>Computing approach:</u> <u>Abstraction</u> . recognises and inputs letters and numbers (adding text) . reads letters and numbers . inputs pictures with support . asks for and watches work being saved and retrieved . presses the space bar to create appropriate spacing between words . begins to identify the save and print symbols	<u>Computing Concept:</u> <u>Logical Reasoning</u> . identify equipment plugged in / out and switched on /off . explores sound on a musical device e.g. Highers volume up . chooses to start, stop and replay an audio recording . chooses to start, stop and replay sound on a media player . identify a variety of media sources
Stepping Stones	<u>E-Safety</u> <u>Begins to identify ways to stay safe online</u> POS 1.1 POS 1.4 POS 1.7 POS 1.12 POS 1.13	<u>E-Safety</u> <u>Identifies ways to stay safe online</u> POS 1.2 POS 1.3 POS 1.11 POS 1.13	<u>Computer Science</u> <u>Demonstrates a basic understanding of algorithms</u> POS 2.10 POS 2.9 POS 2.13	<u>Computer Science</u> <u>Applies skills to create a storyboard</u> POS 3.1 POS 3.2 POS 3.3 POS 3.4 POS 3.5 POS 3.6	<u>Information & Communication</u> <u>Begins to apply keyboard skills to convey information</u> POS 2.6 POS 2.13 POS 2.24 POS 2.25 POS 2.26	<u>Information & Communication</u> <u>Begins to demonstrate an understanding of media sources</u> POS 3.1 POS 3.2 POS 3.3

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Overview	<u>Interacting online safety</u> Using the internet and equipment safely	<u>Unplugged Computing</u> A variety of unplugged activities linked to e-safety e.g. informing adults about internet usage, identifying personal information	<u>Develops awareness of Algorithms</u> Recognise devices need switches and gives examples Awareness that precise instructions are needed	<u>Digital art</u> Identifying and creating storyboards	<u>ICT Skills</u> Developing keyboard skills; caps lock, space bar, deletion button	<u>Media Sources</u> Observing and exploring how data is represented digitally
Key knowledge	<u>Computing Concept: collaboration</u> . begins to know how to stay safe online . knows the difference between a real and simulated experience . begins to know why they should be careful when using the internet <u>Computing Approach: Patterns</u> . begins to know how to spot similarities and differences between real and simulated experiences	<u>Computing Concept: collaboration</u> . knows ways to stay safe online more confidently . knows that a wrong action has negative consequences . knows there are different sources of information . knows the different ways we can communicate online . knows they should be careful when using the internet	<u>Computing concept: Algorithms</u> . knows that actions have consequences . knows that specific actions will create certain outcomes . knows that instructions have to be completed in a set order to achieve a set outcome	Computing approach: Creating . knows that technology can be used to create things . knows in detail how technology can be used to convey information . knows that technology can be used to present information . knows to check work for mistakes	<u>Computing Concept: Abstraction</u> . to know that there are different types of digital information . to know that a keyboard can produce capital letters . to know that a keyboard can produce new paragraphs / lines . to know that text can be changed, deleted and altered	<u>Computing Concept: Logical Reasoning</u> . to know data can be represented digitally . to know a wider range of media sources
Key skills	<u>Computing Concept: collaboration</u> . give examples to show how the internet is used for playing and learning . takes turns using equipment <u>Computing Approach: Patterns</u> . names people they can trust and ask for help	<u>Computing Concept: collaboration</u> . gives examples of how choosing wrong actions can have negative consequences . gives examples of personal information and who they can share it with . informs an adult when using the internet . keeps personal information private	<u>Computing concept: Algorithms</u> . creates a sequence of instructions . identifies that actions will result from a sequence of instructions . spots and corrects mistakes	Computing approach: Creating . uses appropriate tools to create an image . uses tools to correct mistakes . uses equipment to create a storyboard . selects approach software	<u>Computing Concept: Abstraction</u> . identifies text from pictures . identifies and use the caps lock button to make capital letters . turns the caps lock button off to produce lower case letters . identifies and uses the return key when producing documents . identifies and uses the delete and back space buttons to remove unwanted letters / symbols	<u>Computing Concept: Logical Reasoning</u> . identifies a variety of media sources including CDs, DVDs, newspapers . give examples of how data is represented digitally . observe how data is represented digitally e.g. record player

					. experiments with font, size and colour with support	
Reaching High	E-Safety Develops ways to stay safe online POS 1.4 POS 1.6 POS 1.10 POS 1.11 POS 1.12 POS 1.13 POS 1.14	E-Safety Develops ways to stay safe online POS 1.1	Computer Science Develops a basic understanding of algorithms POS 3.1 POS 3.2 POS 3.3 POS 3.4	Computer Science Develops a basic understanding of algorithms POS 3.3 POS 3.5 Information & Communication Begins to investigate how to use keyboard skills POS 3.3	Information & Communication Begins to investigate how to use keyboard skills POS 3.4 POS 3.5	Information & Communication Begins to investigate how to use keyboard skills POS 3.12
Overview	Interacting Online safety Managing & sharing personal information, ownership and learning online	Unplugged & Plugged activities Exploration of different sources of information online; understanding some information might not be accurate	Develops understanding of algorithms Programming successfully using SCRATCH; understanding precise instructions	Digital Art Exploration of animation and paint packages e.g. Digital colouring of British Flags, Royal Family animations Computer Science Introduction to Hour of Code; programming / debugging	ICT Skills Using a search engine and finding relevant information from specific web pages	Creating / Exploring media Pictures, photographs
Key knowledge	Computing Concept: collaboration . knows more ways to stay safe online . knows there are different sources of information online . knows why they need permission to use other people's work . knows why / how to share their learning online with others . knows they need permission from others to use their work	Computing Concept: collaboration . knows a variety of different sources of information online . knows to check different sources of information . knows that some information that can inaccurate . knows some 'safe' websites e.g. BBC . knows what to do if something doesn't feel right when using the internet . knows that some people online can be strangers	Computing concept: Algorithms Develops understanding of algorithms . knows how to write a sequence of instructions to create a specific outcome . knows that software can be used to create things e.g. simple games . knows the tools needed to write a piece of code . knows key subject vocabulary	Computing approach: Creating . knows which app and tools to use to create an image . knows how to correct mistakes by using correct tools . knows how to save and retrieve work Develops understanding of algorithms . knows how to write a sequence of instructions to create a specific outcome	Computing Concept: Abstraction . knows that questions can be answered using the internet . knows that the internet can be used for research purposes . knows that relevant pages from a web search can provide answers / information . knows that the internet provides a wider range of digital data e.g. amps, weather, music, social media	Computing Concept: Logical Reasoning . knows how to save and retrieve work more independently . knows the tabs and instructions needed to save and retrieve work . knows keyboard short-cuts

	. knows that strangers are people they do not know in real life and/or online . knows who they should not share personal information with . knows of who they should share personal information with <u>Computing Concept: abstraction</u> . knows what is important and ignoring what is not important			. knows that software can be used to create things e.g. simple games . knows the tools needed to write a piece of code . knows key subject vocabulary		
Key skills	<u>Computing Concept: collaboration</u> . can manage their time on the internet with support . identify who they can go to with any concerns . saves and retrieves work <u>Computing Concept: abstraction</u> . highlights and uses relevant information whilst discarding irrelevant information	<u>Computing Concept: collaboration</u> . gives examples of when to say 'no' online . identifies online strangers . shares their learning online responsibly and safely	<u>Develops understanding of algorithms</u> . creates code for purpose . recognises and uses software and correct demands . debugs effectively	<u>Computing approach: Creating</u> . creates a picture using correct tools and art app . recognises the impact of some tools e.g. 2d / 3d, colour, text	<u>Computing Concept: Abstraction</u> . uses a search engine . identifies relevant pages from web search . identifies specific digital data	<u>Computing Concept: Logical Reasoning</u> . uses keyboard short cuts effectively . gives technology commands successfully . recognises the set of instructions needed to open and close a piece of work