



# Computing Annual Overview

## Whitehouse Primary School

<p><b>See Separate document for EYFS Guidance</b> <b>EYFS Goals</b></p>	<p>Communication and Language: Listening and attention          Communication and Language: Understanding          Literacy: Reading          Maths: Shape, space and measure          Understanding the World: Children recognise that a range of technology is used in places such as home and schools          Understanding the World: Technology. They select and use technology for particular purposes          Understanding the World: Technology <i>Interact with age appropriate computer software (40-60+ months)</i>          Understanding the World: Technology <i>Knows how to operate simple equipment (30-50 months)</i></p>
<p><b>EYFS Aims</b></p>	<p>To follow instructions          To understand the different parts of a computer          To be able to identify technology in the outside world          To begin to control a computer mouse          To begin to use a keyboard to type          To record sounds and speech using a microphone and computer or device          To select and use technology for a particular purpose</p>

Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p><b>Computer Science</b>  <i>Discrete Computing Teaching</i></p>	<p><b>Computing Unplugged</b></p> <ol style="list-style-type: none"> <li>Sequencing linked to instruction writing, crossing the road, washing hands, etc</li> <li>Drawing algorithms using flow chart templates</li> <li>Drawing Monsters Algorithm</li> </ol>		<p><b>Beebots</b></p> <ol style="list-style-type: none"> <li>Concrete use of direction cards</li> <li>Tinkering with controls</li> <li>Routes from A to B</li> <li>Routes from A to B in written form</li> <li>Application: drawing shapes</li> <li>Bluebot app challenges</li> </ol> <p><i>Could be used collectively</i>  <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a>  <b>NCCE- Moving a Robot</b></p> <ol style="list-style-type: none"> <li>Buttons</li> <li>Directions</li> <li>Forwards and Backwards</li> <li>Four Directions</li> <li>Getting there</li> <li>Routes</li> </ol>		<p><b>Application</b></p> <ol style="list-style-type: none"> <li>Kodable app</li> <li>J2E Website Coding</li> <li>Daisy the dinosaur</li> </ol>	
<p><b>Information Technology- Software</b></p>	<p><b>Photo Collage Creation: PicColage app</b></p> <ul style="list-style-type: none"> <li>I can search the internet for the photos I want</li> </ul>	<p><b>Bringing characters to life: Chatterpix app</b></p> <ol style="list-style-type: none"> <li>Speech bubble planning (unplugged) and finding images</li> </ol>		<p><b>NCCE- Digital Painting</b>  <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a></p> <ol style="list-style-type: none"> <li>How can we paint using computers?</li> <li>Using shapes and lines</li> </ol>		<p><b>NCCE- Digital Writing</b>  <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a></p> <ol style="list-style-type: none"> <li>Exploring the keyboard</li> <li>Adding and removing text</li> </ol>

<i>Linked to cross curricular subjects where relevant</i>	<ul style="list-style-type: none"> <li>- I can organise them on to the page</li> <li>- I can resize and change the orientation of my images</li> <li>- I can add numbers or text to label the images</li> </ul>	2. Making our character talk		<ul style="list-style-type: none"> <li>3. Making careful choices</li> <li>4. Why did I choose that?</li> <li>5. Painting all by myself</li> <li>6. Computing computer art and painting</li> </ul>		<ul style="list-style-type: none"> <li>3. Exploring the toolbar</li> <li>4. Making changes to text</li> <li>5. Explaining my choices</li> <li>6. Explaining my choices</li> </ul>
	<b>Logging on</b>	<b>Logging on</b>	<b>Logging on</b>	<b>Logging on</b>	<b>Logging on</b>	<b>Logging on</b>
<b>Information Technology- Uses</b>  <i>Discrete Computing Teaching</i>			<b>Technology Hunt</b> <ul style="list-style-type: none"> <li>1. Taking photos around school</li> <li>2. Identifying and labelling the photos (using PicColage/Book Creator)</li> </ul>		<b>NCCE- Technology Around Us</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ul style="list-style-type: none"> <li>1. Technology in our classroom</li> <li>2. Using technology</li> <li>3. Developing mouse skills</li> <li>4. Using a computer keyboard</li> <li>5. Developing keyboard skills</li> <li>6. Using a computer responsibly</li> </ul>	
Digital literacy Covered in line with the 'Education for a Connected World' Document						

Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>Computer Science</b>  <i>Discrete Computing Teaching</i>	<b>Computing Unplugged</b> <ul style="list-style-type: none"> <li>1. Lego following instructions algorithms</li> <li>2. <b>Barefoot</b> Crazy Characters lesson</li> <li>3. <b>Code.it</b> Human Crane lesson</li> </ul>	<b>Beebots</b> <ul style="list-style-type: none"> <li>1. Humans v Beebots (concrete)</li> <li>2. Drawing numbers</li> <li>3. Masking tape routes</li> <li>4. Mirroring movements</li> <li>5. Creating Dances</li> <li>6. Maze building</li> <li>7. Beebot app challenges</li> </ul> <i>(could be delivered as a carousel of different challenges in the hall)</i>			<b>Scratch Jr</b> <ul style="list-style-type: none"> <li>1. Concrete use of coding cards</li> <li>2. Tinkering lesson</li> <li>3. Introduction to movement</li> <li>4. Application of movement</li> <li>5. Changing scenes</li> <li>6. Story telling planning and assessment</li> </ul>	<b>Application</b> <ul style="list-style-type: none"> <li>1. A.L.E.X app</li> <li>2. Lego Mindstorms Fix the Factory app</li> <li>3. Lego Bits and Bricks Website</li> </ul>
<b>Information Technology- Software</b>  <i>Linked to cross curricular subjects where relevant</i>		<b>Animation</b> <ul style="list-style-type: none"> <li>1. What is animation?</li> <li>2. Drawing moving images using <a href="https://www.j2e.com/jit5#animate">https://www.j2e.com/jit5#animate</a></li> </ul>	<b>Data Representation</b> <ul style="list-style-type: none"> <li>1. Gathering data as a tally (unplugged)</li> <li>2. Representing data as a pictogram using <a href="https://www.j2e.com/jit5#pictogram">https://www.j2e.com/jit5#pictogram</a></li> </ul>	<b>Mind maps: Poplet app</b> <ul style="list-style-type: none"> <li>1. How to add images and text</li> <li>2. Creating our mind maps</li> </ul>	<b>NCCE- Digital photography</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ul style="list-style-type: none"> <li>1. Devices</li> <li>2. Landscape or portrait</li> <li>3. What makes a good photograph?</li> <li>4. Lighting and focus</li> <li>5. Effects</li> <li>6. Is it real?</li> </ul>	<b>NCCE- Making Music</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ul style="list-style-type: none"> <li>1. How music makes us feel</li> <li>2. Rhythms and patterns</li> <li>3. How music can be used</li> <li>4. Notes and Tempo</li> <li>5. Creating digital music</li> <li>6. Reviewing and editing music</li> </ul>
	<b>Logging on-</b> BBC Dancemat keyboard skills			<b>Logging on-</b> BBC Dancemat keyboard skills		<b>Logging on-</b> BBC Dancemat keyboard skills

<b>Information Technology- Uses</b>  <i>Discrete Computing Teaching</i>			<b>Technology in the world</b> <ol style="list-style-type: none"> <li>Match technology to the place (supermarket, office and airport)</li> <li>Poplet Mindmaps of technology</li> </ol>	<b>NCCE- Information Technology around us</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ol style="list-style-type: none"> <li>What is information technology?</li> <li>Where have we seen technology at home?</li> <li>Where have we seen information technology in the world?</li> <li>How does information technology improve our world?</li> <li>Demonstrate safe use of information technology</li> <li>Using information technology responsibly</li> </ol>		
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Digital literacy Covered in line with the 'Education for a Connected World' Document

Year 3	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2
<b>Computer Science</b>  <i>Discrete Computing Teaching</i>	<b>Computing unplugged</b> <ol style="list-style-type: none"> <li>Decomposition: <b>Barefoot</b> breaking down hand jives</li> <li>Pattern recognition: <b>Barefoot</b> recipes</li> </ol>	<b>Scratch Jr</b> <ol style="list-style-type: none"> <li>Recap of coding</li> <li>Knock knock joke</li> <li>Action blocks introduction</li> <li>Making a Space game</li> </ol>	<b>Rapid router: sequence</b> <a href="https://www.codeforlife.education/rapidrouter/">https://www.codeforlife.education/rapidrouter/</a> <ol style="list-style-type: none"> <li>Getting started (levels 1-12)</li> <li>Shortest route (levels 13-18)</li> </ol>	<b>Code.org: Course C</b> <a href="https://code.org/">https://code.org/</a> <ol style="list-style-type: none"> <li>Sequencing</li> <li>Loops</li> <li>Events</li> </ol>	<b>Scratch: Skills Teaching</b> <ol style="list-style-type: none"> <li>Concrete Scratch cards</li> <li>Concepts before coding: Sequence</li> <li>Sequence-conversations</li> <li>Concepts before coding- Loops</li> <li>Loops- shapes</li> </ol>	<b>Scratch: Application</b> <ol style="list-style-type: none"> <li>Animate a name (cards)</li> <li>Animate a character (cards)</li> <li>Create a story (cards)</li> <li>Rock Band (code club)</li> <li>Lost in Space (code club)</li> </ol> <p><i>Pick one unit</i></p>
<b>Information Technology- Software</b>  <i>Linked to cross curricular subjects where relevant</i>	<b>Word Processing</b> <ul style="list-style-type: none"> <li>I can change text size</li> <li>I can use bold, underlined and italics</li> <li>I can change text colour</li> <li>I can centre text</li> <li>I can change from portrait to landscape</li> </ul>	<b>Data Representation</b> <ol style="list-style-type: none"> <li>Gathering data as a tally (unplugged)</li> <li>Representing data as a graph  <a href="https://www.j2e.com/jit5#chart">https://www.j2e.com/jit5#chart</a> </li> </ol>	<b>Book Creator app</b> <ol style="list-style-type: none"> <li>Creating your cover: Adding text, manipulating text, changing backgrounds and adding photos</li> </ol> <p><i>Topic based book creation (could include app smashing)</i></p> <ul style="list-style-type: none"> <li>Poplet mindmap</li> <li>Chatterpix characters</li> <li>Add sound recording</li> <li>Add hyperlinks</li> </ul>			<b>NCCE- Stop Frame Animation</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ol style="list-style-type: none"> <li>Can a picture move?</li> <li>Frame by frame?</li> <li>What's the story?</li> <li>Picture perfect</li> <li>Evaluate and make it great</li> </ol>

	- I can save a document  <i>Follow up application-acrostic poem</i>					Lights, camera, action!
	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)		<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)		<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	
<b>Information Technology-Uses</b>  <i>Discrete Computing Teaching</i>	<b>Collaboration Online</b> 1. Digital literacy points/rules for working online 2. Padlet based collaborative research MentiMeter Collaborative Word Clouds for vocabulary gathering		<b>NCCE- Connecting Computers</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. How does a digital device work? 2. What parts make up a digital device? 3. How do digital devices help us? 4. How am I connected? 5. How are computers connected? 6. What does our school network look like?			
<b>Information Technology-Searching</b>  <i>Discrete Computing Teaching</i>	<b>Searching Skills</b> 1. Searching basics-race 2. Inaccurate information				<b>Ranking Search Engines</b> 1. Web Crawlers	
Digital literacy Covered in line with the 'Education for a Connected World' Document						

Year 4	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2
<b>Computer Science</b>  <i>Discrete Computing Teaching</i>	<b>Computing unplugged</b> 1. Abstraction: drawing shapes/a house 2. Logical reasoning: <b>Barefoot</b> Sudoku	<b>Rapid router: loops</b> <a href="https://www.codeforlife.education/rapidrouter/">https://www.codeforlife.education/rapidrouter/</a> 1. Loops (level 19-28) 2. Loops with conditions (levels 29-32)	<b>Code.org: Course D</b> <a href="https://code.org/">https://code.org/</a> 1. Sequencing 2. Events 3. Loops 4. Conditionals	<b>Scratch: Skills Teaching</b> 1. Concrete scratch cards 2. Events- controls 3. Concepts before coding: selection 4. Selection- racing car game	<b>Scratch: Application</b> 1. Let's Dance (cards) 2. Make Music (cards) 3. Jumping Game (cards) 4. Ghostbusters Game (code club)  <i>Pick one unit</i>	

<b>Information Technology- Software</b>  <i>Linked to cross curricular subjects where relevant</i>	<b>Word Processing</b> <ul style="list-style-type: none"> <li>- I can add columns</li> <li>- I can input pictures and text boxes</li> <li>- I can add bullet points</li> <li>- I can save and retrieve a document</li> </ul> <p><i>Follow up application- Non Chronological Report, Newspaper Article, Instructional Writing</i></p>		<b>Posters Evaluation Unit</b> <ol style="list-style-type: none"> <li>1. PicColage skills and creation</li> <li>2. Adobe Spark Post skills and creation</li> <li>3. Publisher skills and creation</li> <li>4. Comparison and evaluation of platforms</li> </ol>	<b>Databases: Top Trumps</b> <ol style="list-style-type: none"> <li>1. Records, files and data</li> <li>2. Sorting and filtering data</li> <li>3. Representing data</li> <li>4. Multiplication game</li> </ol>	<b>NCCE- Audio Editing</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ol style="list-style-type: none"> <li>1. Digital recording</li> <li>2. Recording sound</li> <li>3. Creating a podcast</li> <li>4. Editing digital recordings</li> <li>5. Combining audio</li> <li>6. Evaluating podcasts</li> </ol>	<b>NCCE- Photo Editing</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ol style="list-style-type: none"> <li>1. Changing digital images</li> <li>2. Changing composition</li> <li>3. Changing images for different uses</li> <li>4. Retouching images</li> <li>5. Fake images</li> <li>6. Making and evaluating a publication</li> </ol>
	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Beginner unit (15 lessons)
<b>Information Technology- Uses</b>  <i>Discrete Computing Teaching</i>		<b>NCCE- The Internet</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> <ol style="list-style-type: none"> <li>1. Connecting networks</li> <li>2. What is the internet made of?</li> <li>3. Sharing information</li> <li>4. What is a website?</li> <li>5. Who owns the web?</li> <li>6. Can I believe what I read?</li> </ol>				<b>Using Shared Platforms</b> <ol style="list-style-type: none"> <li>1. Sharing a document</li> <li>2. Collaborative Slides</li> <li>3. Shared Spreadsheets</li> </ol>
<b>Information Technology- Searching</b>  <i>Discrete Computing Teaching</i>	<b>Searching skills</b> <ol style="list-style-type: none"> <li>1. TASK skills</li> <li>2. Searching for facts</li> </ol>				<b>Ranking Search Engines inc website design</b> <ol style="list-style-type: none"> <li>1. Plan our website page</li> <li>2. Use Adobe Spark/Google Page to create online</li> <li>3. Evaluate, rank web pages and improve</li> </ol>	

Digital literacy Covered in line with the 'Education for a Connected World' Document

Year 5	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2
<b>Computer Science</b>  <i>Discrete Computing Teaching</i>	<b>Computing Unplugged</b> <ol style="list-style-type: none"> <li>1. Application: flow chart for making a cup of tea</li> <li>2. Using Microsoft Word and textboxes to create the flow chart</li> <li>3. Application: using flow charts for checking grammar</li> </ol>	<b>Code.org: Course E</b> <a href="https://code.org/">https://code.org/</a> <ol style="list-style-type: none"> <li>1. Ramp it up</li> <li>2. Sprites</li> <li>3. Nested Loops</li> </ol>		<b>Scratch: Skills Teaching</b> <ol style="list-style-type: none"> <li>1. Concrete scratch cards</li> <li>2. Concepts before coding: variables</li> <li>3. Variables- maze</li> <li>4. Variables- quiz</li> </ol>		<b>Scratch: Application</b> <ol style="list-style-type: none"> <li>1. Chase game (cards)</li> <li>2. Pong Game (cards)</li> <li>3. ChatBot (code club)</li> </ol> <p><i>Pick one unit</i></p>

<b>Information Technology- Software</b>  <i>Linked to cross curricular subjects where relevant</i>	<b>Word Processing</b> 1. Application and Creation of flow charts (CS) 2. Creating faces on word  - I can use spellcheck for spelling and grammar mistakes I can use the synonym tool	<b>NCCE- Video Editing</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. What is video? 2. Identifying devices 3. Using a device 4. Features of an effective video 5. Importing and editing video 6. Video evaluation	<b>Movie Evaluation Unit</b> 1. Adobe Spark Video skills 2. Adobe Spark Video creation 3. iMovie skills 4. iMovie creation 5. Presentations and comparison and evaluation of platforms		<b>NCCE- Vector Drawing</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. The drawing tools 2. Create a vector drawing 3. Being effective 4. Layers and objects 5. Manipulating objects 6. Get designing	<b>Game Creation: Bloxels</b> 1. Character and object design 2. Creating your world 3. Adding graphics and sounds 4. Playing and evaluating
	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Intermediate unit (12 lessons)
<b>Information Technology- Uses</b>  <i>Discrete Computing Teaching</i>	<b>School Network Hunt</b> 1. Introduce different elements of the school network and explain their functions 2. Children to go around the school and try and identify these taking photos 3. Create a multimedia presentation using photos			<b>NCCE- Sharing Information</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. Systems 2. Computer systems and us 3. Transferring information 4. Working together 5. Better working together Shared working		
<b>Information Technology- Searching</b>  <i>Discrete Computing Teaching</i>		<b>Searching Skills</b> 1. Features and layouts of search engines				<b>Fake Websites</b> 1. Pacific Tree Octopus research 2. How to spot fake websites 3. Can we believe everything we read online
<b>Digital Literacy</b>	Digital literacy Covered in line with the 'Education for a Connected World' Document					

Year 6	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2	Summer 2
<b>Computer Science</b>  <i>Discrete Computing Teaching</i>	<b>Computing Unplugged</b> 1. Application: Jam Sandwich bot 2. Application: Playground games algorithms 3. Application: Using flow charts for spelling rules	<b>Code.org: Course F</b> <a href="https://code.org/">https://code.org/</a> 1. Ramp it up 2. Variables 3. Loops 4. Sprites			<b>Scratch: Skills Teaching</b> 1. Concrete scratch cards 2. Inputs- video sensing (cards)	<b>Scratch: Application</b> 1. Catch game (cards) 2. Virtual pet (cards) 3. Imagine a world (cards) 4. Paint box (code club) 5. Boat race (code club)  <i>Pick two units</i>

<b>Information Technology- Software</b>  <i>Linked to cross curricular subjects where relevant</i>	<b>Word Processing</b> - I can use shortcuts when using word		<b>NCCE- Web Page Creation</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. What makes a good website? 2. How would you layout your web page? 3. Copyright or Copy wrong? 4. How does it look? 5. Follow the breadcrumb 6. Think before you link		<b>Presentations Unit</b> 1. PowerPoint skills 2. Application and creation 3. Keynote skills 4. Application and creation 5. Google slides skills 6. Application and creation 7. Prezzi skills 8. Application and creation 9. Presentations and comparison and evaluation of platforms  <i>Two of the above can be picked to compare</i>	<b>NCCE- Modelling Data- Spreadsheets (Year 7)</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. Getting to know a spreadsheet 2. Quick calculations 3. Collecting data 4. Become a data master 5. Level up your data skills 6. Assessment
	<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Advanced unit (7 lessons)		<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Advanced unit (7 lessons)		<b>Touch typing: Typing.com</b> <a href="https://www.typing.com/">https://www.typing.com/</a> Advanced unit (7 lessons)	
<b>Information Technology- Uses</b>  <i>Discrete Computing Teaching</i>						<b>School Network</b> 1. Playground based lesson looking at how the school network works
<b>Information Technology- Searching</b>  <i>Discrete Computing Teaching</i>		<b>Fake news &amp; HTML coding</b> 1. What is fake news? 2. Mouse X Ray Goggles Manipulation		<b>NCCE- Communication</b> <a href="https://teachcomputing.org/resources">https://teachcomputing.org/resources</a> 1. Searching the web 2. Selecting search results 3. Ranking 4. Searching 5. Communicating 6. Communicating responsibly		
<b>Digital Literacy</b>		Digital literacy Covered in line with the 'Education for a Connected World' Document				