

Glen Hills Computing long term plan

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
4+	4+ continue to use cross curricular ICT where possible							
1	PM Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs	PM Unit 1.9 Technology outside school Weeks – 2 Programs Various	PM Unit 1.3 Pictograms Weeks – 3 Programs – 2Count	Coding – Beebots <u>Twinkl units</u> 6 weeks	PM Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story	PM Unit 1.7 Coding Weeks – 6 Programs – 2Code	PM Unit 1.8 Spreadsheets Weeks – 3 Programs – 2Calculate	PM Unit 1.2 Grouping & Sorting Weeks – 2 Programs – 2DIY
2	PM Unit 2.1 <u>Purple Mash Coding</u> 6 weeks	Esafety unit – <u>Twinkl unit</u> 6 weeks	Logo and Scratch (<u>Twinkl unit</u>) 6 weeks	<u>Using the internet (Twinkl unit)</u> 6 weeks	PM Unit 2.6 Creating Pictures Weeks – 5 Programs – 2PaintAPicture	PM Unit 2.8 Presenting Ideas Weeks – 4 Programs – Various	PM Unit 2.3 Spreadsheets Weeks – 4 Programs – 2Calculate	
3	Purple Mash Unit 3.9 Using word/docs and powerpoint/slides create topic based presentation. (Romans)	Purple Mash Unit 3.4 Touch Typing Weeks – 4 Programs – 2Type	Purple Mash Unit 3.5 Email (including email safety) Weeks – 6 Programs – 2Email, 2Connect, 2DIY	Purple Mash Unit 3.1 <u>Purple mash coding</u>	Programming – Scratch and Logo <u>Twinkl unit</u>	PM Unit 3.7 Branching data bases – Weeks 3 Programs – 2Question	PM Unit 3.8 Graphing Weeks – 3 Programs – 2Graph	
4	<u>Word processing – cross curricular based topic concentrating on skills from generic skills list</u> Begin lesson with touch typing revision	Purple M.Unit 4.3 Spreadsheets Weeks – 6 Programs – 2Calculate	Esafety unit <u>Twinkl unit</u>	Purple Mash Pointillism 2Paint A Picture project 3 weeks	Purple M. Unit 4.6 Animation Weeks – 3 Programs – 2Animate	Scratch – Questions and Quizzes <u>Twinkl unit plan</u>	Purple M.Unit 4.4 Writing for different audiences Weeks – 5 Programs – 2Email, 2Connect, 2DIY	
5	2D and 3D modelling Including sketch up <u>Twinkl planning</u>	Purple M.Unit 5.5 Game Creator Weeks – 5 Programs – 2DIY 3D <u>Networks</u> <u>Map our Internet</u> 2 weeks	Esafety <u>Twinkl unit</u> 6 weeks	Scratch <u>Twinkl unit</u>	<u>Spreadsheets</u> <u>Simon Haughton</u> <u>Introducing spreadsheets</u> or <u>Purple Mash</u> Spreadsheets	<u>Google Docs</u> (word processing) <u>Searching</u> <u>Writing with links</u>		
6	<u>Theme park excel</u>	Scratch – Crab Maze, Coin program, Primary Games Maker	Esafety - <u>purple Mash</u> 3 weeks Networks - 3 weeks	Design and make a website <u>Create an esafety website using Google sites</u>	<u>Written code unit</u> Binary - Purple Mash 4 weeks	Text Adventures		

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computer science (CS), information technology (IT) and digital literacy (DL) Use apps such as popplet, comic life, book creator, explain everything to show evidence of esafety.

	Computer Science	Information Technology	Digital Literacy
1	Understand what algorithms are Create simple programs	Use technology purposefully to create digital content Use technology purposefully to store digital content Use technology purposefully to retrieve digital content	Use technology safely Keep personal information private Recognise common uses of information technology beyond school
2	Understand that algorithms are implemented as programs on digital devices Understand that programs execute by following precise and unambiguous instructions Debug simple programs Use logical reasoning to predict the behaviour of simple programs	Use technology purposefully to organise digital content Use technology purposefully to manipulate digital content	Use technology respectfully Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
3	Write programs that accomplish specific goals Use sequence in programs Work with various forms of input Work with various forms of output	Use search technologies effectively Use a variety of software to accomplish given goals Collect information Design and create content Present information	Use technology responsibly Identify a range of ways to report concerns about contact

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4	<p>Design programs that accomplish specific goals</p> <p>Design and create program</p> <p>Debug programs that accomplish specific goals</p> <p>Use repetition in programs</p> <p>Control or simulate physical systems</p> <p>Use logical reasoning to detect and correct errors in programs</p> <p>Understand how computer networks can provide multiple services, such as the world wide web</p> <p>Appreciate how search results are selected</p>	<p>Select a variety of software to accomplish given goals</p> <p>Select, use and combine internet services</p> <p>Analyse information</p> <p>Evaluate information</p> <p>Collect data</p> <p>Present data</p>	<p>Understand the opportunities computer networks offer for communication</p> <p>Identify a range of ways to report concerns about content</p> <p>Recognize acceptable / unacceptable behaviour</p>
5	<p>Solve problems by decomposing them into smaller parts</p> <p>Use selection in programs</p> <p>Work with variables</p> <p>Use logical reasoning to explain how some simple algorithms work</p> <p>Use logical reasoning to detect and correct errors in algorithms</p> <p>Understand computer networks including the internet</p> <p>Appreciate how search results are ranked</p>	<p>Combine a variety of software to accomplish given goals</p> <p>Select use and combine software on a range of digital devices</p> <p>Analyse data</p> <p>Evaluate data</p> <p>Design and create systems</p>	<p>Understand the opportunities computer networks offer for collaboration</p> <p>Be discerning in evaluating digital content</p>

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Year group	Computer Science	Information Technology	Digital Literacy		
1	<p><u>Unit 1.2 Grouping & Sorting</u> Weeks – 2 Programs – 2DIY</p> <p><u>Unit 1.4 Lego Builders</u> Weeks – 3 Programs – 2DIY</p> <p><u>Unit 1.5 Maze Explorers</u> Weeks – 3 Programs – 2Go</p> <p><u>Unit 1.7 Coding</u> Weeks – 6 Programs – 2Code</p>	<p><u>Unit 1.3 Pictograms</u> Weeks – 3 Programs – 2Count</p> <p><u>Unit 1.6 Animated Story Books</u> Weeks – 5 Programs – 2Create A Story</p> <p><u>Unit 1.8 Spreadsheets</u> Weeks – 3 Programs – 2Calculate</p>	<p><u>Unit 1.1 Online Safety & Exploring Purple Mash</u> Weeks – 4 Programs Various</p> <p><u>Unit 1.9 Technology outside school</u> Weeks – 2 Programs Various</p>		
2	<p><u>Unit</u></p>	<p><u>2.1 Coding</u> Weeks – 5 Programs – 2Code</p>	<p><u>Unit 2.3 Spreadsheets</u> Weeks – 4 Programs – 2Calculate</p> <p><u>Unit 2.4 Questioning</u> Weeks – 5 Programs – 2Question, 2Investigate</p> <p><u>Unit 2.6 Creating Pictures</u> Weeks – 5 Programs – 2PaintAPicture</p> <p><u>Unit 2.7 Making Music</u> Weeks – 3 Programs – 2Sequence</p> <p><u>Unit 2.8 Presenting Ideas</u> Weeks – 4 Programs – Various</p>	<p><u>Unit 2.2 Online Safety</u> Weeks – 3 Programs – Various</p> <p><u>Unit 2.5 Effective Searching</u> Weeks – 3 Programs – Browser</p>	
3	<p>Programming on the ipad: Daisy, Sketch Nation, Kodable, Move the turtle, Cato's Hike Scratch – smoking car Music machine Coordinates. SEE WORKBOOK 1</p>	<p>Using word/docs and powerpoint/slides create topic based presentation. (Romans)</p> <p><u>Unit 3.7 Simulations</u> Weeks – 3 Programs – 2Simulate, 2Publish</p> <p><u>Unit 3.8 Graphing</u> Weeks – 3 Programs – 2Graph</p>	<p><u>Purple Mash Unit 3.4 Touch Typing</u> Weeks – 4 Programs – 2Type</p> <p><u>Purple Mash Unit 3.5 Email</u> (including email safety)</p>		

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			<p>Weeks – 6 Programs – 2Email, 2Connect, 2DIY</p>
4	<p>iPad programming Move the turtle, ALEX, Hopscotch Scratch – Maths Quiz, Slug trail game tables game SEE WORKBOOK 2</p>	<p>Manipulating and creating images – cross curricular based topic concentrating on skills from skills list Purple M.Unit 4.3 Spreadsheets Weeks – 6 Programs – 2Calculate Purple Mash Pointillism Weeks – 3 Programs – 2Paint A Picture Purple M. Unit 4.6 Animation Weeks – 3 Programs – 2Animate Purple M.Unit 4.4 Writing for different audiences Weeks – 5 Programs – 2Email, 2Connect, 2DIY</p>	
5	<p>Purple M.Unit 5.5 Game Creator Weeks – 5 Programs – 2DIY 3D iPad programming Move the turtle, ALEX, Hopscotch Scratch Counting Machine Selection investigation perimeter Clock SEE WORKBOOK 3</p>	<p>2D and 3D modelling Including sketch up</p> <p>Spreadsheets Simon Haughton Introducing spreadsheets</p>	<p>Creating a website Searching Networks Map our Internet Writing with links</p>
6	<p>Scratch – Crab Maze, Coin program, Primary Games Maker</p>	<p>Theme park excel Create a story based game. Epic Citadel ppt Create a presentation – prezi</p>	<p>Google sites – website creation Creating a esafety video using iMovie</p>

Key stage 1

Pupils should be taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact