



Computing Curriculum Overview

Subject Lead: Miss A Martin

PM- Purple Mash TC- Teach Computing

Digital literacy Information technology Computer science



St Herbert's RC Primary School

Subject/Area	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5/6 Cycle A	<u>Systems and searching (TC)</u> -Systems. -Computer systems and us. -Searching the web. -Selecting search results. -How search results are ranked. (NC link 2.4,2.5)	<u>Spreadsheets 5.3 (PM)</u> -Conversions of measurements. -The count tool. -Formulae including the advanced mode. -Using text variables to perform calculations. -Event planning with a spreadsheet. (NC link 2.6)	<u>Selection in quizzes (TC)</u> -Exploring conditions. -Selecting outcomes. -Asking questions. -Planning a quiz. -Testing a quiz. -Evaluating a quiz. (NC link 2.1,2.2,2.3,2.6)	<u>Video Production (TC)</u> -What is video? -Filming techniques. -Using a storyboard. -Planning a video. -Importing and editing video. -Video evaluation. (NC link 2.5,2.6,2.7)	<u>Variables in games (TC)</u> -Introducing variables. Variables in programming. -Improving a game. -Designing a game. -Design to code. -Improving and sharing. (NC link 2.1,2.2,2.3,2.6)	<u>Web page creation (TC)</u> -What makes a good website? -How would you layout your webpage? -Copyright or copywrong? -How does it look? -Follow the breadcrumbs. -Think before you link? (NC link 2.5,2.6,2.7)
Year 5/6 Cycle B	<u>Communication and Collaboration (TC)</u> -Internet addresses. -Data packets. -Working together. -Shared working. -How we communicate. -Communicating responsibly. (NC link 2.4,2.6,2.7)	<u>Flat file databases (TC)</u> -Creating a paper-based database. -Computer databases. -Using a database. -Using search tools. -Comparing data visually. -Databases in real life. (NC link 2.5,2.6))	<u>Coding 5.1 (PM)</u> -Coding effectively. -Simulating a physical system. -Decomposition and abstraction. -Friction and functions. -Introducing strings. -Text variables and concatenation. (NC link 2.1,2.2,2.3)	<u>Concept maps 5.7 (PM)</u> -Introduction to concept mapping. -Using 2connect. -2connect story mode. -Collaborative concept maps. (NC link 2.6)	<u>Coding 6.1 (PM)</u> -Designing and making a more complex program. -Using functions. -Flowcharts and control simulations. -User input. -Text based adventures. (NC link 2.1,2.2,2.3)	<u>Word processing with google docs 5.8 (PM)</u> -Making a document from a blank page. -Inserting images- Considering copyright. -Editing images. -Adding the text. -Finishing touches. -Sharing files. (NC link 2.6)
Year 3/4 Cycle A	<u>Connecting computers (TC)</u> -How does a digital device work? -What parts make up a digital device? -How do digital devices help us? -How am I connected? How are computers connected? What does our school network look like? (NC link 2.4,2.5,2.6)	<u>Spreadsheets 3.3/3.4 (PM)</u> -Creating pie charts and bar graphs. -More than, less than and spin button tools. -Advanced mode and cell addresses. -Formula wizard and formatting cells. -Using the timer and spin buttons. -Line graphs. (NC link 2.6)	<u>Sequencing sounds (TC)</u> -Introduction to Scratch. -Programming sprites. -Sequences. -Ordering commands. -Looking good. -Making an instrument. (NC link 2.1,2.2,2.3,2.6)	<u>Stop Frame Animation (TC)</u> -Can a picture move? -Frame by frame. -What's the story? -Picture perfect. -Evaluate and make it great. -Lights, camera, action! (NC link 2.6,2.7)	<u>Repetition in shapes (TC)</u> -Programming a screen turtle. -Programming letters. -Patterns and repeats. -Using loops to create shapes. -Breaking things down. -Creating a program. (NC link 2.1,2.2,2.3,2.6)	<u>Presenting 3.9 (PM)</u> -Making a presentation from a blank page. -Adding media. -Adding shapes and lines. -Adding animations. -Creating a presentation. (NC link 2.6,2.7)
Year 3/4 Cycle B	<u>The Internet (TC)</u> -Connecting networks. -What is the internet made of? (NC link 2.4,2.5,2.6)	<u>Branching database (TC)</u> -Yes or no questions. -Making groups. -Creating a branching (NC link 2.6)	<u>Coding 3.1 (PM)</u> -Using flowcharts. -Using timers. -Using repeat. (NC link 2.1,2.2,2.3,2.6)	<u>Writing for different audiences 4.4 (PM)</u> -Font styles. -Using a simulated scenario to (NC link 2.6,2.7)	<u>Logo 4.5 (PM)</u> -Introduction to 2logo. -Creating letters using 2logo. -Using the repeat command in (NC link 2.1,2.2,2.3,2.6)	<u>Photo editing (TC)</u> -Changing digital images. -Changing the composition of images. (NC link 2.6,2.7)

	-Sharing information. -What is a website? -Who owns the web? -Can I believe what I read? (NC link 2.4,2.5,2.6)	- database. -Structuring a branching database. -Using a branching database. -Two ways of presenting information. (NC link 2.6,2.7)	-Code, test and debug. -Design and make interactive scene. (NC link 2.1,2.2,2.3)	- produce a news report. -Writing for a campaign. (NC link 2.6)	2logo. -Using procedures. (NC link 2.1,2.2,2.3)	-Changing images for different uses. -Retouching images. -Fake images. -Making and evaluating a publication. (NC link 2.6,2.7)
Year 1/2 Cycle A	Technology around us (TC) -Technology in our classroom. -Using technology. -Developing mouse skills. -Using a computer keyboard. -Developing keyboard skills. -Using a computer responsibly. (NC link 1.4,1.5,1.6)	Spreadsheets 1.8/2.3 (PM) -Introduction to spreadsheets -Adding images to spreadsheets. -Use the 'speak' and 'count' tools to count items. -Copying, cutting and pasting totals. -Using a spreadsheet to add amounts. -Creating a table and a block graph. (NC link 1.4,1.6)	Programming animations-Coding (TC) -Comparing tools. -Joining blocks -Make a change. -Adding sprites. -Project design. -Following my design. (NC link 1.1,1.2,1.3)	Animated stories 1.6 (PM) -Drawing and creating. -Animation. -Sounds and more. -Making a story. -Copy and paste. (NC link 1.4)	Programming quizzes (TC) -Scratch Jr recap. -Outcomes. -Using a design. -Changing a design. -Designing and creating a program. -Evaluating. (NC link 1.1,1.2,1.3)	Creating pictures 2.6 (PM) -Introduction and impressionism. -Pointillist art. -Piet Modrian. -Surrealism and eCollage. (NC link 1.4)
Year 1/2 Cycle B	Technology outside school (TC) -What is IT? -IT in school. -IT in the world. -The benefits of IT. -Using IT safely. -Using IT in different ways. (NC link 1.4,1.5,1.6)	Questioning 2.4 (PM) -Using and creating pictograms. -Asking yes/no questions. -Binary trees. -Using 2question. -Using 2investigate (NC link 1.4,1.6)	Coding 1.7 (PM) -Instructions. -Objects and actions. -Events. -When code executes. -Setting the scene. -Using a plan. (NC link 1.1,1.2,1.3)	Digital writing (TC) -To use a computer to write. -To add and remove text on a computer. -To identify that the look of text can be changed on a computer. -To make careful choices when changing text. -To explain why I used tools that I chose. -To compare trying on a computer to writing on paper. (NC link 1.4)	Coding 2.1 (PM) -Algorithms -Collision detection. -Using a timer. -Different object types. -Buttons. -Debugging. (NC link 1.1,1.2,1.3)	Digital music (TC) -To say how music can make us feel. -To identify that there are patterns in music. -To experiment with sound using a computer. -To use a computer to create a musical pattern. -To create music for a purpose. -To review and refine our computer work. (NC link 1.4)
Reception	Busy Bodies (Barefoot) Reception -Look how we grow -Movement algorithms	Winter Warmers (Barefoot) Reception -Scarves for snowmen	Super Space (Barefoot) Reception -Build a rocket -Space chase	Spring Time (Barefoot) Reception -Make Rabbit run -Explore sequencing whilst planting seeds	Boats Ahoy (Barefoot) Reception -Is this a good boat? -On board role play -Build a boat	Summer Fun (Barefoot) Reception -Journeys -Tangrams Exploring Purple Mash 1.1 (PM) -Safe logins -My work area
Nursery	Busy Bodies (Barefoot) 3-4 Years Old -Parts of our body -Make a body	Winter Warmers (Barefoot) 3-4 Years Old -Feed the birds	Super Space (Barefoot) 3-4 Years Old -Amazing aliens	Spring Time (Barefoot) 3-4 Years Old -Junk scarecrows	Boats Ahoy (Barefoot) 3-4 Years Old -What is a good boat?	Summer Fun (Barefoot) 3-4 Years Old -Colour connections

EYFS objectives

Busy Bodies

Concepts & Approaches:

Algorithms,
Decomposition,
Debugging, Logic,
Patterns, Abstraction

Provides four activities that help children discover how bodies move and grow. Using the resources provided they explore and learn about parts of the body, growth and movement.

Simple algorithms are created and adapted to form a routine of movements.

Winter Warmers

Concepts & Approaches:

Algorithms, Creating,
Collaboration,
Decomposition,
Tinkering, Persevering

Snowmen scarves and patterns, creating igloos and bird feeders- all take centre stage in our three winter themed activities.

Super Space

Concepts and Approaches:

Algorithms, Collaboration,
Persevering, Creating,
Pattern, Logical reasoning,
Tinkering, Abstraction

Includes 3 space themed activities to develop pupils computational thinking and problem solving skills. Include creating algorithms to direct a rocket through space and spotting patterns in pictures of aliens.

Spring Time

Concepts & Approaches:

Abstraction, Tinkering,
Creating, Collaborating,
Algorithms, Persevering,
Decomposition

Three Spring themed activities see the children make a Rabbit run, create Junk scarecrows and explore sequencing whilst planting seeds.

Boats Ahoy

Concepts & Approaches:

Algorithms, Decomposition,
Creating, Tinkering, Logic,
Patterns, Abstraction,
Collaborating

Takes children on a journey of discovery as they investigate boats. Four activities make up this set of resources. Includes different uses of boats, floating and sinking predictions, creating a good boat through exploring designs and role play.

Summer Fun

Concepts & Approaches:

Tinkering, Persevering,
Patterns, Logic,
Decomposition, Debugging,
Collaborating, Algorithms

Children explore their surroundings and get creative, take a journey and make a map, and discover seaside tangrams, in these three fun activities