

Y2 Computing

Coding			
Autumn 1 (5 lessons)			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> 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 			
Key Vocabulary			Key Knowledge
ANCHOR WORDS	GOLDOLOCKS WORDS	STEP-ON WORDS	By the end of this unit, the pupils should know that:
Action - Types of commands, which are run on an object. Test - When code is run to check that it works correctly. Timer - Use this command to run a block of commands after a timed delay or at regular intervals.	Collision Detection - Detecting when two characters on the screen touch each other. Debug/Debugging - Looking for any problems in the code, fixing and testing them Event - Something that causes a block of code to be run. Properties - All objects have properties that can be changed in design or by writing code e.g. image, colour and scale properties. Scale - The size of an object. Sequence - When a computer program runs commands in order.	Algorithm - A precise step by step set of instructions used to solve a problem or achieve an objective. Nesting - When you write a command inside something else e.g. a block of commands could be nested inside a timer.	<ul style="list-style-type: none"> To understand what an algorithm is. To create a computer program using an algorithm. To create a program using a given design. To understand the collision detection event. To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To understand the function of buttons in a program. To understand and debug simple programs
“Bridging Back” (previous years/cross-curricular content)		“Bridging Forward” (future years/cross curricular content)	
Year 1 – Coding, Lego Builders, Maze Explorers		Year 3 – Coding, Branching Databases Year 4 – Coding, Logo, Animation Year 5 – Coding Year 6 – Coding, Binary	

Y2 Computing

Online Safety			
Summer 1 (3 lessons)			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> 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 Vocabulary			Key Knowledge
ANCHOR WORDS Internet - A way to send information from one computer to another anywhere in the world using technology such as phones, satellites and radio links.	GOLDOLOCKS WORDS Email - Messages distributed by electronic means from one computer user to one or more people. Search - Look for information (in a database or the World Wide Web) using a search engine.	STEP-ON WORDS Attachment - A computer file sent with an email. Digital Footprint - The information about a person that exists on the Internet as a result of their online activity.	<u>By the end of this unit, the pupils should know that:</u> To know how to refine searches using the Search tool. To use digital technology to share work, communicate and connect with others locally. To have some knowledge and understanding about sharing more globally on the Internet. To introduce Email as a communication tool. To understand how we should talk to others in an online situation. To open and send simple online communications in the form of email. To understand that information put online leaves a digital footprint or trail. To identify the steps that can be taken to keep personal data and hardware secure.
“Bridging Back” (previous years/cross-curricular content) Year 1 – Online Safety, Technology Outside of School			“Bridging Forward” (future years/cross curricular content) Year 3 – Online Safety, Email Year 4 – Online Safety, Effective Searching Year 5 – Online Safety, Word Processing Year 6 – Online Safety, Blogging

Y2 Computing

Spreadsheets			
Summer 2 (4 lessons)			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> • 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 			
Key Vocabulary			Key Knowledge
ANCHOR WORDS Copy and Paste - A way to copy information from the screen into the computer's memory and paste it elsewhere without re-typing. Columns - Vertical reference points for the cells in a spreadsheet. Rows - Vertical reference points for the cells in a spreadsheet.	GOLDILOCKS WORDS Backspace key - Use this key to delete the character before the current cursor position. Spreadsheet - A computer program that represents information in a grid of rows and columns.	STEP-ON WORDS Cells - An individual section of a spreadsheet grid. It contains data or calculations.	<u>By the end of this unit, the pupils should know that:</u> <ul style="list-style-type: none"> • To use spreadsheet software to add image, lock, move cell, speak and count tools to make a counting machine. • To learn how to copy and paste on a spreadsheet. • To use the totalling tools. • To use a spreadsheet for money calculations. • To use spreadsheets to collect data and produce a graph.
"Bridging Back" (previous years/cross-curricular content) Year 1 – Spreadsheets, Pictograms			"Bridging Forward" (future years/cross curricular content) Year 3 – Spreadsheets, Graphing Year 4 – Spreadsheets Year 5 – Spreadsheets, Databases Year 6 - Spreadsheets

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Questioning			
Summer 1 (5 lessons)			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> 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 			
Key Vocabulary			Key Knowledge
ANCHOR WORDS Pictogram - A diagram that uses pictures to represent data.	GOLDILOCKS WORDS Data - Facts and statistics collected together that can provide information. Collate - Collect and combine (texts, information, or data). Database - A computerised system that makes it easy to search, select and store information.	STEP-ON WORDS Binary Tree - A simple way of sorting information into two categories. Avatar - An icon or figure representing a person in a video game, Internet forum or other online format.	<u>By the end of this unit, the pupils should know that:</u> <ul style="list-style-type: none"> To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use a database to answer more complex search questions. To use the Search tool to find information.
“Bridging Back” (previous years/cross-curricular content) Year 1 – Grouping and Sorting, Pictograms			“Bridging Forward” (future years/cross curricular content) Year 3 – Spreadsheets, Branching Databases, Graphing Year 4 – Spreadsheets Year 5 – Databases Year 6 - Spreadsheets

Y2 Computing

Effective Searching			
Autumn 2			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> recognise common uses of information technology beyond school 			
Key Vocabulary			Key Knowledge
ANCHOR WORDS Search - Look for information in a database or the World Wide Web using a search engine.	GOLDSLOCKS WORDS Internet - A global computer network providing a variety of information and communication facilities, consisting of interconnected networks and computers.	STEP-ON WORDS Search Engine - A program that searches for and identifies items on the World Wide Web.	<u>By the end of this unit, the pupils should know that:</u> <ul style="list-style-type: none"> To understand the terminology associated with searching. To gain a better understanding of searching on the Internet.
“Bridging Back” (previous years/cross-curricular content) Year 1 – Online Safety, Technology Outside School			“Bridging Forward” (future years/cross curricular content) Year 3 – Online Safety Year 4 – Online Safety, Effective Searching Year 5 – Online Safety, Word Processing Year 6 – Online Safety, Networks

Y2 Computing

Making Music			
Autumn 2 (3 lessons)			
Statutory NC Objectives KS1 Computing: <ul style="list-style-type: none"> use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school 			
Key Vocabulary			Key Knowledge
ANCHOR WORDS Instrument - An object or device for producing musical sounds. Music - Vocal or instrumental sounds (or both) played alone or combined. Volume - How loud a piece of music is.	GOLDILOCKS WORDS Digitally - By means of digital or computer technology. Soundtrack - A recording of the musical accompaniment of a film. Tempo - The speed at which a passage of music is, or should be, played.	STEP-ON WORDS bpm - The number of beats played in a minute. Composition - A creative work, especially a poem or piece of music. Music - Vocal or instrumental sounds (or both) played alone or combined.	<u>By the end of this unit, the pupils should know that:</u> <ul style="list-style-type: none"> To make music digitally To explore, edit and combine sounds To edit and refine composed music. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record and upload environmental sounds and to use these sounds to create music.
“Bridging Back” (previous years/cross-curricular content) Year 1 – Animated Story Books			“Bridging Forward” (future years/cross curricular content) Year 4 – Animation, Making Music Year 5 – Game Creator