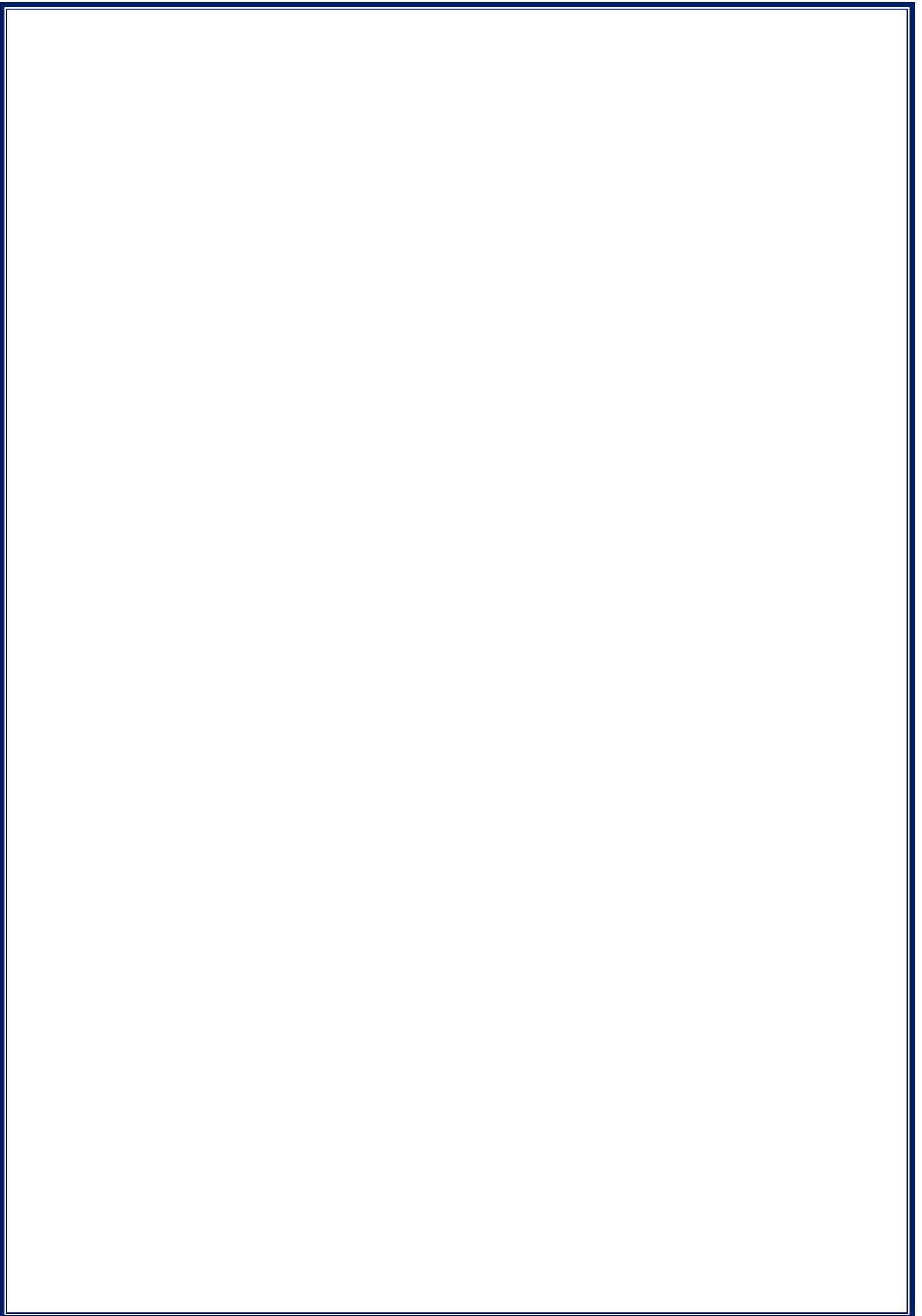




ARK Franklin Primary Academy



Computing Curriculum



Computing Overview

	Autumn Term		Spring Term		Summer Term	
	Coding		Creative Topics		Disciplinary Competencies	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Maze explorers & Beebots 		Coding 		Animated Story Books 	
Year 2		Coding 		Creating Pictures 		Effective Searching and Online Safety 
Year 3	Coding 		Simulations and Branching 		Email 	
Year 4		Coding 		Logo and Animation 		Spreadsheets 
Year 5	Coding 		Game Creation 		Blogging 	
Year 6		Coding 		Quizzing 		Network and Binary 

Year 1

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview	<p>Maze explorers & Beebots</p> 		<p>Coding</p> 		<p>Animated Story Books</p> 	
Suggested Content	<p><i>Pupils will program a toy to move around a map to find buried treasure. They will think of algorithms for their routes and input these as store programs for the robot.</i></p> <p><i>Hunt for treasure</i></p> <p><i>Record an algorithm</i></p> <p><i>Experiment with a robot</i></p> <p><i>Program a robot</i></p> <p><i>Program a robot to find treasure</i></p> <p><i>Debug a program</i></p>		<p><i>Pupils will examine a variety of different types of coding skills and explore these in a variety of contexts</i></p> <p><i>Understand what coding means in computing</i></p> <p><i>Undertake block coding</i></p> <p><i>Create backgrounds and characters</i></p> <p><i>Introduce moving characters</i></p> <p><i>Add more actions using when</i></p> <p><i>Code interactivity between objects</i></p>		<p><i>Pupils will work creatively to examine illustrations from books that they have read to create illustrate a simple eBook.</i></p> <p><i>Understand e-books</i></p> <p><i>Continue a previously saved story</i></p> <p><i>Add sound to a story</i></p> <p><i>Add backgrounds</i></p> <p><i>Copy and paste page</i></p> <p><i>Share and discuss e-stories</i></p>	
Required Resources	<p>Program(s): 2go, 2logo</p> <p>Equipment: Beebots</p>		<p>Program(s): 2code</p> <p>Equipment: Laptops</p>		<p>Program(s): 2create a story</p> <p>Equipment: Laptops</p>	

Year 2

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview		Coding 		Creating Pictures 		Effective Searching and Online Safety 
Suggested Content	<p><i>Pupils will examine a variety of different types of coding skills and explore these in a variety of contexts</i></p> <p><i>Introduce algorithms</i></p> <p><i>Use repeat and timer commands</i></p> <p><i>Undertake debugging</i></p> <p><i>Explore possible actions of objects</i></p> <p><i>Create a complex story to tell a problem</i></p>		<p><i>Pupils will examine a wide variety of artists and use programs from Purplemash to explore and recreate work from famous artists</i></p> <p><i>Examine the impressionist style</i></p> <p><i>Recreate pointillism art</i></p> <p><i>Examine and recreate the work of Piet Mondrian</i></p> <p><i>Examine and recreate the work of Williams Morris</i></p> <p><i>Explore surrealism and collage</i></p>		<p><i>Pupils become further aware of the ability to source information on the internet and the need to consider their own safety when searching online</i></p> <p><i>Understand the terminology associated with searching</i></p> <p><i>Gain a better understanding of searching on the internet</i></p> <p><i>Create a leaflet to help others search online</i></p> <p><i>Refine searches</i></p> <p><i>Understand the concept of a digital footprints</i></p>	
Required Resources	<p>Program(s): 2code</p> <p>Equipment: Laptops</p>		<p>Program(s): 2collage, 2art</p> <p>Equipment: Laptops</p>		<p>Program(s): 2do, 2respond</p> <p>Equipment: Laptops</p>	

Year 3

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview	Coding 		Simulations and Branching 		Email 	
Suggested Content	<p><i>Pupils will examine a variety of different types of coding skills that develop in complexity; they will explore these in a variety of contexts</i></p> <p><i>Write a program</i></p> <p><i>Design a program for a physical system</i></p> <p><i>Use repetition commands</i></p> <p><i>Introduce if statements</i></p> <p><i>Undertake debugging</i></p> <p><i>Introduce variables</i></p>		<p><i>Pupils will understand the concepts and purposes of branching databases and simulations creating their own to analyse and evaluate a variety of situations</i></p> <p><i>Sort objects into yes/no situations</i></p> <p><i>Complete a branching database</i></p> <p><i>Create a branching database</i></p> <p><i>Examine simulations</i></p> <p><i>Explore simulations</i></p> <p><i>Analyse and evaluate simulations</i></p>		<p><i>Pupils will examine sending and receiving emails in a safe environment and discuss the importance of e-safety</i></p> <p><i>Consider different methods of communication</i></p> <p><i>Open and respond to emails</i></p> <p><i>Use email safely</i></p> <p><i>Add attachments to an email</i></p> <p><i>Explore a simulated email scenario</i></p>	
Required Resources	<p>Program(s): 2code</p> <p>Equipment: Laptops</p>		<p>Program(s): 2question , 2do</p> <p>Equipment: Laptops</p>		<p>Program(s): 2email</p> <p>Equipment: Laptops</p>	

Year 4

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview		Coding 		Logo and Animation 		Spreadsheets 
Suggested Content	<p><i>Pupils will examine a variety of different types of coding skills that develop in complexity; they will explore these in a variety of contexts</i></p> <p><i>Write a specific program</i></p> <p><i>Introduce variable statements</i></p> <p><i>Use repetition and user input</i></p> <p><i>Undertake debugging</i></p> <p><i>Work with variables</i></p> <p><i>Make a control situation</i></p>		<p><i>Pupils will learn and undertake commands using a logo program</i></p> <p><i>Learn the language of Logo</i></p> <p><i>Create letter shapes using Logo</i></p> <p><i>Use the repeat function to create shapes</i></p> <p><i>Use and build procedures in Logo</i></p> <p><i>Pupils will learn basic instruction to animate objects</i></p> <p><i>Learn how animations are created</i></p> <p><i>Learn about onion skinning in animation</i></p> <p><i>Add background noises and sounds</i></p> <p><i>Understand what stop motion is</i></p>		<p><i>Pupils will begin to understand the basic functions of spreadsheets and are introduced to a variety of different formulae and ways of presenting data</i></p> <p><i>Add formulae and format cells</i></p> <p><i>Use the timer and spin button</i></p> <p><i>Create line graphs</i></p> <p><i>Use a spreadsheet for budgeting</i></p> <p><i>Explore Place Value within a spreadsheet</i></p>	
Required Resources	<p>Program(s): 2code</p> <p>Equipment: Laptops</p>		<p>Program(s): 2logo, 2animate</p> <p>Equipment: Laptops</p>		<p>Program(s): 2calculate</p> <p>Equipment: Laptops</p>	

Year 5

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview	Coding 		Game Creation 		Blogging 	
Suggested Content	<p><i>Pupils will examine a variety of different types of coding skills that develop in complexity; they will explore these in a variety of contexts</i></p> <p><i>Write a program that accomplishes a specific goal</i></p> <p><i>Simulate a physical system</i></p> <p><i>Introduce text variables</i></p> <p><i>Create and improve a game</i></p> <p><i>Understand internet safety</i></p>		<p><i>Pupils will plan their own simple computer game. They will design characters and backgrounds and create a working prototype.</i></p> <p><i>Set the scene</i></p> <p><i>Create the game environment</i></p> <p><i>Create a game quest</i></p> <p><i>Finish and share a game</i></p> <p><i>Evaluate the games created</i></p>		<p><i>Pupils will extend their sense of membership of a learning community beyond school as they create a media-rich blog, comment on blogs and respond to the comments of others.</i></p> <p><i>Find out what makes a good blog</i></p> <p><i>Write a blog post</i></p> <p><i>Comment on other people's blog posts</i></p> <p><i>Add images to a blog post</i></p> <p><i>Insert audio or video into a blog post</i></p> <p><i>Write blog posts about an event as it occurs</i></p>	
Required Resources	Program(s): 2code Equipment: Laptops		Program(s): Purplemash Equipment: Laptops		Program(s): 2blog Equipment: Laptops	

Year 6

	Autumn Term		Spring Term		Summer Term	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Overview		Coding 		Quizzing 		Network and Binary 
Suggested Content	<p><i>Pupils will examine a variety of different types of coding skills that develop in complexity; they will explore these in a variety of contexts</i></p> <p><i>Write a complex program that accomplishes a specific goal</i></p> <p><i>Introduce functions</i></p> <p><i>Review vocabulary</i></p> <p><i>Use buttons to showcase work</i></p> <p><i>Create a text based adventure</i></p>		<p><i>Pupils will create and test quizzes on a variety of different topics</i></p> <p><i>Make a picture quiz for younger children</i></p> <p><i>Use question types</i></p> <p><i>Explore grammar quizzes</i></p> <p><i>Create a quiz that requires searching a database</i></p> <p><i>Create quizzes to test teachers and parents</i></p>		<p><i>Pupils will develop an understanding of the origins and working of the internet before looking at binary code and how it is used to represent content</i></p> <p><i>Understand the origins of the internet</i></p> <p><i>Discover how internet is accessed in different locations</i></p> <p><i>Represent numbers in binary</i></p> <p><i>Represent object states in binary</i></p> <p><i>Explore division as a tool in binary code</i></p>	
Required Resources	Program(s): 2code Equipment: Laptops		Program(s): 2DIY Equipment: Laptops		Program(s): 2connect, 2question Equipment: Laptops	