Key Stage 2 Computing - The Aims of Our Curriculum

1. Enable children to retain and apply this essential knowledge. 2. Inspire children to become life-long learners. 3. Create a culture of high aspiration through challenging content and therefore pride in achievement. 4. Promote the spiritual, moral, social and cultural development of children, including fundamental British values of democracy, the rule of law, individual liberty, mutual respect and tolerance for those with different faiths and beliefs and for those without faith. 5. Provide opportunities for developing self-confidence, self-awareness, independence, creativity, respect and resilience in children. 6. Promote knowledge and understanding of how children can keep themselves safe and healthy. 7. Develop children's numeracy, literacy and oracy, including the sustained expansion of their vocabulary. 8. Promote reading as a life skill and enable our children to become life-long readers.

Year 5	Areas	Term 1	Term 2	Term 3
	Content	Y5 – Introduction to network/frog/office 365 KPI 6 Use a variety of software on a range of devices to accomplish goals • Logging in and password security • Network drives • Saving work – naming conventions and folder structure • Logging in to frog and navigating the platform • Dashboards • Frogplay • Assignments • Logging in to office • Online applications Sharing documents e-safety animation KPI 6 Use a variety of software on a range of devices to accomplish goals	NXT KPI 1 Design and write programs KPI 2 understand what variables are KPI 3 Work with various forms of input and output KPI 4 Begin to use logical reasoning to debug programs KPI 6 Use a variety of software on a range of devices to accomplish goals • Using the NXT blocks to build programs – move, sound,display etc • Sequencing – The importance of placing blocks in the correct order, so the program runs how we want it to. • Variables – speed, rotations, time etc • Loops to make programs more efficient – drive in a square • Operators > and < • Sensors – light sensor, ultrasonic sensor. Follow a line – inputs and outputs Selection – switches Scratch Game design	Introducing Ohbot KPI 1 Design and Write programs KPI 2 Understand what variables are KPI 4 Begin to use logical reasoning to debug programs • Using the ohbot software – motors, values, toplip bottomlip variables etc • Sequence – how the order of blocks affect the order in which the commands are executed • Selection – if,then,else • Loops – repetition and iteration • Variables • Boolean operators • Broadcasts • Operators (=) User input using the ask and wait block Using Excel KPI 6 Use a variety of software on a range of devices to accomplish goals

		Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. • Researching safety – finding key information • How to create an animation by taking a series of still images • The importance of small movements • Add a drawing layer to create a mouth • Recording sound as an audio track • Importing media into movie plus • Editing in movie plus – text screens, music, scrolling text etc Exporting final project as mp4	KPI 1 Design and Write programs KPI 2 Understand what variables are KPI 4 Begin to use logical reasoning to debug programs • Scratch interface and blocks • Sequence – how the order of the block affect the order in which the commands are excecuted • Selection – if then else. How we make choices in a program. • X,Y coordinates and how we use these to create motion and trigger events • Collision code using colour, other sprites etc • Switching costumes to create animation • Switching backgrounds • loops Variables – score, speed	• Formulas • Charts • Goal seek • Modelling
	Literacy link	Writing scripts for animation	Vocabulary – sequence, selection, variable	
	Assessment	Final video project	Practical tasks, final program project	Individual tasks. Final program project
	Cross curricular links	Art/Literacy	Maths, Science	Maths. Science.

Year 6	Areas	Term 1	Term 2	Term 3
	Content	Researching on the internet – reliability of information Green screen documentary KPI 5 – Use search engines effectively and be discerning in evaluating digital content KPI 6 – Use and combine a variety of software on a range of devices to accomplish goals • That information on the internet is not always true • That we need to check the validity of information • That there are a number of ways we can check the information online • How to use the icanpresent software How to use the movieplus software	Scratch – Virtual Pet KPI 1 Design and write programs that accomplish specific goals KPI 2 Work with variables KPI 3 Work with an increasing range of inputs and outputs KPI 4 Develop use of logical reasoning to debug algorithms and programs • Show and hide • When clicked • If, then, else • Take user input • Operators >, <, = • Variables • Costumes If backgroundname = X etc Further Ohbot – Sensors KPI 1 Design and write programs that accomplish specific goals KPI 2 Work with variables KPI 3 Work with an increasing range of inputs and outputs KPI 4 Develop use of logical reasoning to debug algorithms and programs KPI 6 Use and combine a variety of software on a range of devices to accomplish goals • If, then, else • Loops repetition, • Operators <,>,=	Networks including the internet KPI 7 - 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 • Web searches • Search Engines • Forms of communication • Communicating responsibly • When to share NXT robotics – FLL challenge KPI 1 Design and write programs that accomplish specific goals KPI 2 Work with variables KPI 3 Work with an increasing range of inputs and outputs KPI 4 Develop use of logical reasoning to debug algorithms and programs KPI 6 Use and combine a variety of software on a range of devices to accomplish goals • Decomposition • Debugging

			• Variables • Set x to Y	
	Literacy link	Writing scripts. Speaking and Listening. Oracy.		
	Assessment	Final video project	Virtual pet project	Online quiz NXT Tasks.
	Cross curricular links	Geography	Maths.	Maths. PHSCE