COMPUTING WHOLE SCHOOL OVERVIEW

YEAR GROUP	Computing opportunities throughout the year in EYFS		
Computing in our EYFS is centred around play-based, unplugged activities that focus on building children's listening skills, curiosity, and creative problem solving.			
EYFS	**Nursery**	**Reception**	
	Using SMART boards Using programmable toys such as Beebots Watching online clips	Take a photograph with a camera or iPad Searching for information on the internet Playing games on the interactive whiteboard Exploring old typewriters and mechanical toys Using a Beebot Watching online video clips Listening to music and audiobooks	
YEAR GROUP	**AUTUMN TERM**	**SPRING TERM**	**SUMMER TERM**
Year 1			
1	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	Technology around us Recognising technology in school and using it responsibly. **Digital painting**	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes. **Grouping data**	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally. **Programming animations**

	Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Exploring object labels, then using them to sort and group objects by properties	Designing and programming the movement of a character on screen to tell stories.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE
Year 2			
2	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond. **Digital photography** Capturing and changing digital photographs for different purposes.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions. **Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Making music** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition. **Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE
Year 3			
3	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks. **Stop-frame animation**	**Sequencing sounds** Creating sequences in a block-based programming language to make music. **Branching databases**	**Desktop publishing** Creating documents by modifying text, images, and page layouts for a specified purpose. **Events and actions in programs**

	Capturing and editing digital still images to produce a stop-frame animation that tells a story.	Building and using branching databases to group objects using yes/no questions.	Writing algorithms and programs that use a range of events to trigger sequences of actions.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE
Year 4			
4	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	<u>The internet</u> Recognising the internet as a network of networks including the WWW, and why we should evaluate online content. **<u>Audio editing</u>** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**<u>Repetition in shapes</u>** Using a text-based programming language to explore count-controlled loops when drawing shapes. **<u>Data logging</u>** Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	**<u>Photo editing</u>** Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled. **<u>Repetition in games</u>** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE
Year 5			
5	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	<u>Sharing information</u> Identifying and exploring how information is shared between digital systems. **<u>Video editing</u>** Planning, capturing, and editing video to produce a short film.	**<u>Selection in physical computing</u>** Exploring conditions and selection using a programmable microcontroller. **<u>Flat-file databases</u>** Using a database to order data and create charts to answer questions.	**<u>Vector drawing</u>** Creating images in a drawing program by using layers and groups of objects. **<u>Selection in quizzes</u>** Exploring selection in programming to design and code an interactive quiz.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE

Year 6			
6	**Computing systems and Network & Creating Media**	**Programming A and Data and Information**	**Creating Media & Programming B**
	Internet communication Recognising how the WWW can be used to communicate and be searched to find information. **Webpage creation** Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.	**Variables in games** Exploring variables when designing and coding a game. **Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data	**3D modelling** Planning, developing, and evaluating 3D computer models of physical objects. **Sensing** Designing and coding a project that captures inputs from a physical device.
	STICKY KNOWLEDGE	STICKY KNOWLEDGE	STICKY KNOWLEDGE