Computing

Curious Computing provides high quality computing experiences through enquiry led learning. Pupils will become independent and skilled computer users. Through exploration and investigation activities, creative and problem solving skills are developed so they are able to adapt and develop a lifelong fascination with our ever-changing technological world. Enquiries are organised into three overarching themes; "Creative Computing", "Programming and Coding" and "Digital Research". Pupils will become digitally literate – able to use, develop ideas and express themselves through information and communication technology. Each enquiry develops skills and knowledge displayed within an end of enquiry challenge. E-safety is taught utilising resources, regularly updated, from Commonsense media which aims for children to take ownership of their digital lives. E-safety changes at a rapid rate and fundamental to creating digital citizens, using technology safely.

	Creative Computing	Programming and Coding	Digital Research
EYFS	**Educational Programme:** Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.		
	Core Knowledge / skills and concepts. By the time children finish in EYFS we want them… ➢ To complete a simple age-appropriate program using technology ➢ To use the IWB to draw a picture ➢ To use the internet with adult supervision to find and retrieve simple information of interest		
1	What does digital mean? - Consolidation of EYFS computing skills.	What is programming? - Understand that devices can be controlled by buttons and single step commands.	Where can I find information? - Recognise, use and talk about different sources of digital content, information and data.
2	What tools are useful? - Know how to use word processing, paint and other related software.	What is coding? - Using a programming app to create an interactive display.	What is the World Wide Web? - Know about different sorts of digital content. Know that a range of content can be found on the "World Wide Web". Know how to use it safely.
3	How can I change things? - Know how to create a multi-media animation. Know how to use editing tools of presentation software and word processors.	How can codes be different? - understand the different sequences of actions can achieve the same outcome.	How is everything connected? - Know that a web browser lets you look at web pages on the "World Wide Web". Be able to use tools to find specific information on a website.
4	How can data be modified? - Know how to create a spread sheet. Know how to use modify functions of presentation software and word processors.	How can variables help? - Know that variables can be used to store user input.	How do hyperlinks work? - Understand the features of hyperlinks: online and embedded in documents.

5	Why are spreadsheets useful? - Using search technology, then using spreadsheet software to collect, analyse and present data and information.	Why does sequencing in coding matter? - Know simple programming concepts such as sequencing, variables, repetition and selection.	Why is "trial and error" useful? - Writing a program to be used on a physical device using sensors for input and then using the screen for output.
6	Why are formulas helpful? - Know how to use spreadsheets to organise and sort data.	Why can coding go "wrong"? - Know simple programming concepts such as sequencing, variables, repetition and selection. (applied variation: change of context)	Why is "copyright" important? - understand copyright and the importance of acknowledging sources. Understand the purpose of a range of content.

Curriculum coverage and progression		
Class	**Year A** (Year 1, 3, 5)	**Year B** (Year 2, 4, 6)
EYFS	**Educational Programme:** Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.	
	Core Knowledge / skills and concepts. By the time children finish in EYFS we want them… ➢ To complete a simple age-appropriate program using technology ➢ To use the IWB to draw a picture ➢ To use the internet with adult supervision to find and retrieve simple information of interest	
Robin	What does digital mean? - Consolidation of EYFS computing skills.	What tools are useful? - Know how to use word processing, paint and other related software.
	What is programming? - Understand that devices can be controlled by buttons and single step commands.	What is coding? - Using a programming app to create an interactive display.
	Where can I find information? - Recognise, use and talk about different sources of digital content, information and data.	What is the World Wide Web? - Know about different sorts of digital content. Know that a range of content can be found on the "World Wide Web". Know how to use it safely.
Swallow	How can I change things? - Know how to create a multi-media animation. Know how to use editing tools of presentation software and word processors.	How can data be modified? - Know how to create a spread sheet. Know how to use modify functions of presentation software and word processors.
	How can codes be different?	How can variables help?

	- understand the different sequences of actions can achieve the same outcome.	- Know that variables can be used to store user input.
	How is everything connected? - Know that a web browser lets you look at web pages on the "World Wide Web". Be able to use tools to find specific information on a website.	How do hyperlinks work? - Understand the features of hyperlinks: online and embedded in documents.
Hawk	Why are spreadsheets useful? - Using search technology, then using spreadsheet software to collect, analyse and present data and information.	Why are formulas helpful? - Know how to use spreadsheets to organise and sort data.
	Why does sequencing in coding matter? - Know simple programming concepts such as sequencing, variables, repetition and selection.	Why can coding go "wrong"? - Know simple programming concepts such as sequencing, variables, repetition and selection. (applied variation: change of context)
	Why is "trial and error" useful? - Writing a program to be used on a physical device using sensors for input and then using the screen for output.	Why is "copyright" important? - understand copyright and the importance of acknowledging sources. Understand the purpose of a range of content.