Purpose of Study	A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.			
COMPUTING KNOWLEDGE about …	Early Years	KS1 (Y1 and Y2)	Lower KS2 (Y3 and Y4)	Upper KS2 (Y5 and Y6)
CODING	KNOW that an instruction tells you what to do.	KNOW that an algorithm is a precisely defined sequence of instructions.	KNOW that programming is 'turning an algorithm into code'	KNOW that there are a variety of coding languages which have been developed over time.
	SEQUENCE	CODE, DATA, DEBUG	INPUT, OUTPUT, VARIABLE	ROUTER, GATEWAY, SERVER
	LANGUAGE - ROBOT: Beebot	***LANGUAGE: Scratch*** Functions of coding blocks. Adapting Sprite and backgrounds to suit purpose.	***LANGUAGE: Scratch*** SELECTION and REPETITION e.g. IF, AND, OR, NOT commands in Scratch.	***LANGUAGE: Python***
COLLECTING and COMBINING INFORMATION	Recognise given software/ hardware for specific tasks. e.g. keyboard, camera on an ipad. Know how to input simple data into a table of information.	Know common safe site for children e.g. BBC content. WORD POWERPOINT Know how to create simple representations of data. To know what office programmes are	Know techniques for establishing authenticity of information. Know how to collect data and represent it in an appropriate format e.g. tables of information. To know how to select appropriate programmes for a given communication	Know how results are selected and ranked in response to search strings. Know how to collect data, input into an appropriate format and create graphs to present findings. To produce and edit a variety of office programmes e.g. animations, fonts, formatting

COMMUNICATING EFFECTIVELY	Recognise a range of technology e.g. camera, keyboard	Recognise common uses of information technology beyond school. Recognise the main keys on a keyboard Identify and know where the letters are on a keyboard To know what an email looks like.	Understand computer networks including the internet. Apply the knowledge of the keyboard through touch typing To know what an email is and how they can be sent and received to others.	Understand how the style of communication varies depending on audience, purpose and technology. Know how to touch type to present work for different purposes. To know the appropriate, tone and tools of email e.g. cc, attachments
CONNECTING RESPONSIBLY	Select appropriate technology for the task.	Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies including home/ school/ Childline.	Identify acceptable/ unacceptable behaviour. Identify a range of ways to report concerns about content and contact including home, school, Childline, police and CEOP Environmental impact of technology.	Understand the role that ethics plays in using technology. Current issues around technology e.g. increasing use of SMART devices in the home.