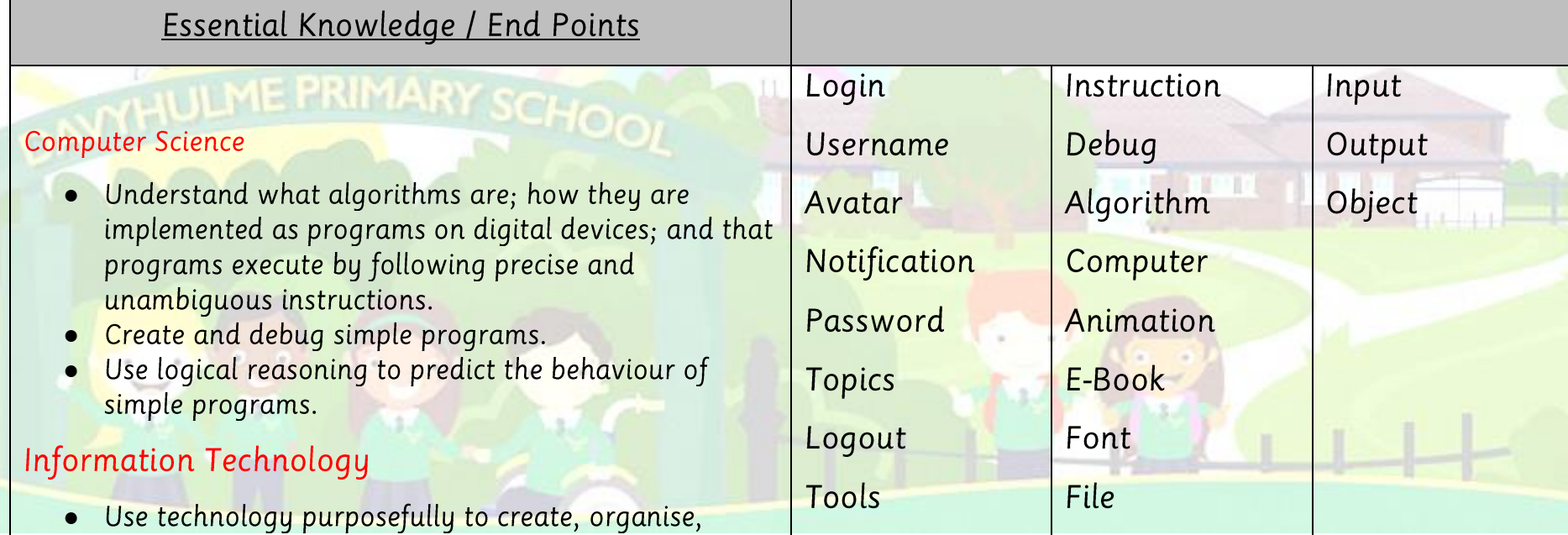# Computing

Essential Knowledge / End Points

Record of progression of key skills (knowledge) and vocabulary

Year 1 Essential Knowledge / End Points	Key Vocabulary		
Computer Science - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. - Create and debug simple programs. - Use logical reasoning to predict the behaviour of simple programs. **Information Technology** - Use technology purposefully to create, organise, store, manipulate and retrieve digital content. **Digital Literacy** - Recognise common uses of information technology beyond school. - Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about	Login Username Avatar Notification Password Topics Logout Tools My Work Save Sort Criteria	Instruction Debug Algorithm Computer Animation E-Book Font File Sound Effect Code Command Event	Input Output Object

| content or contact on the internet or other online technologies. | Pictogram

Data

Collate | Execute | |

Year 2 Essential Knowledge / End Points	Key Vocabulary		
Computer Science • Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. • Create and debug simple programs. • Use logical reasoning to predict the behaviour of simple programs. **Information Technology** • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. **Digital Literacy** • Recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about	Action Algorithm Background Collision Detection Key Pressed Design Mode Predict Nesting Properties Sequence Scene Text	Search Internet Attachment Email Digital Footprint Copy & Paste Cells Columns Spreadsheet Binary Tree Database Search Engine	Sound effect Node Animated

content or contact on the internet or other online technologies.	Scale	Palette Template	

Year 3 Essential Knowledge / End Points	Key Vocabulary		
Computer Science ● Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. ● Use sequence, selection and repetition in programs; work with variables and various forms of input and output. ● Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. ● 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. **Information Technology**	Algorithm Blocks of Command Alert Flowchart Button Output Repeat Nesting Procedure Values Sequence	PEGI Rating Advance Mode Spin Tool Top Row Keys Bottom Row Keys Home Row Keys Space Bar CC Send Compose Address Book	Branching Database Question Simulation Field Bar Chart Block Graph Line Graph Slide Show Stock Image Transition Text Box

	Blog Spoof Website	Save to Draft	Text Formatting
• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Digital Literacy • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.			

Year 4 Essential Knowledge / End Points	Key Vocabulary		
Computer Science • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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. **Information Technology** • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Action Alert Coordinates If/Else Object Types Repeat Until Variable Value Computer Virus Cookies Copyright Digital Footprint Identity Theft Malware Phishing Spam Average	Underline LOGO BK FD RT LT SETPC PU PD Onion Skinning Stop Motion Flip Book Easter Egg	Motherboard Graphics Card CPU RAM Network Card Monitor Speakers Keyboard Mouse

Digital Literacy	Formula		
• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	Random Tool Formula Wizard Bold Italic		

Year 5 Essential Knowledge / End Points	Key Vocabulary		
Computer Science • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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. **Information Technology** • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Action Abstraction Algorithm Decomposition Coordinates Function Timer Variable Simulation Citations Encryptions Reputable Reference Bibliography Brochure	Average Equals Tools Branching Database Binary Tree Statistics and Reports Computer Game Screenshot CAD Modelling 3D Printing Concept Map Audience	Cursor Font In-built Styles Text Formatting Text Wrap Word Art Word Processing Tool Merge Cells

Digital Literacy			
• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.			

Year 6 Essential Knowledge / End Points	Key Vocabulary		
Computer Science • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • 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. **Information Technology** • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Developer Get Input Launch Command Number Variable Predict Procedure Run String Selection Tab User Input Screen Time	Blog Post Collaboration Text-based Adventure Debug Network Router Network Cables WAN LAN Wireless	BIT BYTE Kilobyte Machine Code Gigabyte Transistor Terabyte Nibble Alignment Range Cell Reference Workbook Average Function

Digital Literacy			
• Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.			