Frogmore Infant School progression of skills and knowledge in computing
DECLARATIVE KNOWLEDGE
As a Computist, I know that:

	Computer Science	Information Technology	Digital Literacy
National Curriculum Statements	• 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	• use technology purposefully to create, organise, store, manipulate and retrieve digital content	• 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 content or contact on the internet or other online technologies
Year R	• A computer or programmable toy follows instructions. • Instructions need to be clear and in the correct order to work • A sequence is a set of instructions given one after another. • Different commands (forwards, backwards, turn) make the toy or device move in different ways. • Changing the order of instructions can change the outcome. • Mistakes in instructions can stop a program or toy from working correctly.	• Digital devices (computers, tablets, cameras) can be used to store and retrieve information. • They can create and present work using digital tools. • Software and applications have tools that allow them to add text, images, or sounds. • Digital work can be saved and opened again later. • Combining text, images, and sounds can help share information. • Digital devices can be used to communicate ideas to others.	• Personal information should be kept private online. • There are rules for using technology safely and respectfully. • Some content online is safe and some is unsafe. • I should ask an adult if unsure about something online. • Passwords and usernames help keep digital accounts safe. • I should be polite and kind when communicating online. • Information I share online can be seen by others.

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	• Working together helps plan and follow instructions successfully. • Testing instructions allows them to see what happens and make improvements.	• Following instructions carefully helps technology work correctly. • Devices should be used safely and respectfully. • Experimenting with digital tools allows them to explore and learn new things.	• I can use devices and programs to help me learn and be creative. • Actions on a device can leave a digital footprint.
Year 1	• A computer is a machine that follows instructions. • Instructions must be clear and in the correct order. • A sequence is a set of instructions given in order. • Commands can be used to control a device (e.g. forwards, backwards, turn). • Different commands make a device move in different ways. • Changing the order of instructions changes the outcome. • An error in instructions can stop a program working correctly. • Debugging means finding and fixing mistakes in instructions. • Simple programs can be used to make things happen on screen or control toys.	• Digital devices (computers, tablets, cameras) can be used to store and retrieve information. • Information can be presented in different forms, including text, images, and sound. • Using technology allows people to communicate and share information. • Digital content can be created, edited, and saved. • Digital devices need to be used safely and respectfully. • Technology can help solve problems and make tasks easier. • Icons, buttons, and menus are used to navigate software and applications.	• Personal information should be kept private online. • There are rules for using technology safely and respectfully. • Some content online is safe and reliable, and some is not. • I should ask an adult if I am unsure about something online. • Passwords and usernames help keep digital accounts secure. • I should be polite and kind when communicating online. • Information I share online can be seen by others. • Devices and software can be used to support my learning and creativity. • Digital footprints are created whenever I use technology.

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Year 2	• A computer or device follows precise instructions to perform tasks. • A sequence is a set of instructions given in a specific order. • Different commands (forwards, backwards, turn) produce different outcomes. • Changing the order of commands changes what happens. • Errors in a sequence of commands can prevent a program or device from working correctly. • Debugging means finding and fixing mistakes in instructions. • Logical reasoning can help predict the outcome of a sequence of commands. • Sequences of commands can be combined to solve simple problems. • Programs can be used to control devices or create predictable results on-screen.	• Digital devices can store, retrieve, and organise information. • Information can be presented in different forms, including text, images, and multimedia. • Software and applications have tools to create, edit, and improve digital content. • Using pictures, words, or sounds together, can help show your ideas more clearly. • Saving work regularly helps prevent loss of information. • Following instructions carefully ensures digital tools work correctly. • Technology can be used to create, edit, and present work for a purpose. • I can improve digital content using simple editing tools • Reviewing and editing digital content improves the quality of work. • Using technology safely and responsibly is important when creating or sharing content.	• Passwords and usernames help keep digital accounts secure. • Personal information should not be shared online without permission. • Some things we see online are safe and true, but some things are unsafe or not true. • Online actions can create a digital footprint that lasts. • Communication online should be polite, respectful, and responsible. • There are rules and guidelines for using technology safely. • I should ask an adult for help if I see something online that makes me unsure or uncomfortable. • Digital devices can be used to communicate information to others.

PROCEDURAL KNOWLEDGE
I will know how to…

	Computer Science	Information Technology	Digital Literacy
Year R	• Follow simple instructions to move a programmable toy (e.g., Bee-Bot) one step at a time. • Give simple commands to a programmable toy, including forwards, backwards, and turns. • Explore what happens when a sequence of instructions is given. • Repeat simple sequences of commands to achieve the same outcome. • Begin to change or adjust a sequence of commands to improve results. • Begin to identify when a sequence does not work as expected. • Work with a partner to plan and carry out a simple sequence of instructions. • Observe and talk about what happens when	• Turn on and log in to digital devices with support. • Use a mouse, touchscreen, or keyboard to interact with software or apps. • Open and close simple programs or applications with guidance. • Use basic tools to create digital content, such as drawing, typing, or adding images. • Save and retrieve my work with adult help. • Explore combining text, images, or sounds to create simple digital presentations. • Use digital devices to communicate ideas or share information with others. • Begin to review and make simple improvements to digital work. • Follow simple instructions to use technology safely and respectfully.	• Log in and out of devices with support. • Follow simple rules for using technology safely. • Ask an adult for help when unsure about something online or on a device. • Recognise when content is safe or unsafe with adult support. • Communicate politely and respectfully using digital tools. • Share simple information or work digitally with support. • Explore simple digital tools to create and present ideas. • Begin to understand that actions on a device can leave a record (digital footprint). • Use technology safely and responsibly in different learning activities.

	instructions are followed in order.		
Year 1	• Follow simple instructions to control a programmable toy or on-screen object. • Give single-step commands using forwards, backwards and turn. • Create a short sequence of commands to achieve a simple outcome. • Enter commands in the correct order to make a device move as intended. • Run a sequence of instructions and observe what happens. • Identify when a sequence does not work as expected. • Change or re-order commands to improve a sequence. • Debug a simple program by fixing errors one step at a time. • Test a program and explain what was changed to make it work.	• Turn on and log in to digital devices safely. • Open and navigate simple software or applications using icons and menus. • Use basic tools to create and edit digital content (e.g., text, images, or drawings). • Save and retrieve digital work with support. • Use technology to communicate simple information, such as sending a message or presenting work. • Follow instructions to use digital devices safely and respectfully. • Combine different forms of digital content (text, images, sound) to present information. • Review and improve digital work by editing or rearranging content. • Explain how I completed a task.	• Log in and out of devices safely with support. • Use simple passwords or prompts to access digital accounts with adult support. • Follow rules for using technology safely, including asking an adult when unsure. • Recognise and report inappropriate or unsafe content. • Communicate politely and respectfully when using digital tools. • Share simple information online safely with adult supervision. • Use digital devices to create and present work safely. • Begin to understand that actions online leave a digital footprint. • Use tools to edit, improve, and present digital content responsibly.

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Year 2	• Follow simple instructions to control a programmable device or on-screen object. • Give commands using forwards, backwards, and turns to create short sequences. • Create longer sequences of commands to achieve a specific outcome. • Test a sequence of commands and observe what happens. • Identify when a sequence does not work as intended and suggest improvements. • Change, re-order, or improve sequences to achieve the desired result. • Debug simple algorithms by finding and correcting errors. • Predict what a device will do when you give it a sequence of commands. • Use what I have learned to make a device move or make a simple program on my own.	• Turn on, log in, and navigate digital devices independently and safely. • Open and close applications or software confidently. • Create and edit digital content, including text, images, and simple multimedia. • Open, save and organise digital work with minimal support. • Use digital tools to communicate information clearly (e.g., simple presentations or emails). • Check my work on a computer or tablet and improve it by editing or arranging it differently. • Talk about the steps I used to make or show my digital work. • Understand how to follow simple instructions to use software or applications effectively.	• Log in and out of devices and accounts independently, following safety rules. • Use passwords and prompts appropriately with adult support. • Recognise safe and unsafe content online and take appropriate action (tell an adult). • Communicate politely and responsibly using digital tools. • Share simple information and content online safely with supervision. • Use digital devices to create, edit, and present work for a specific purpose. • Review and improve digital content using appropriate tools. • Begin to understand that online actions create a digital footprint. • Follow simple online safety rules when working or talking with others on a device.