Name:

Primary Computing - Skills Assessment

	Digital Literacy & ICT	Computer Science	E-Safety
Step 1	Understands that people interact with computers. Uses software with guidance from an adult to create digital content. Recognises that digital content can be represented in many forms. Talks about their work and makes changes to improve it. Knows common uses of information technology beyond the classroom. Can save their work using appropriate file and folder names.	Understands what an algorithm is and is able to express simple algorithms symbolically (arrow cards etc). Demonstrates care and precision to avoid errors when following an algorithm. Program a physical device *(e.g. Roamer, Bee-Bot etc).* Understands that programs execute by following **precise** instructions. Executes, checks and changes programs. Understands that computers have no intelligence and that computers can do nothing unless a program is executed. Recognises that all software on digital devices is programmed.	Obtains content from the world wide web using a web browser. Understands the importance of communicating safely and respectfully online, and the need for keeping personal information private. Knows what to do when concerned about content or being contacted.
Step 2	Uses technology with increasing independence to create digital content. Shows an awareness for the quality of digital content produced. Uses a variety of software to manipulate and present digital content. Shares their experiences of technology in school and beyond the classroom. Talks about their work and makes improvements to solutions based on feedback received. Recognises different types of data (e.g. text, number). Can use a range of input and output devices (keyboard, mouse, touchscreen, microphone, screen, printout, video, audio etc).	Understands that algorithms are implemented on digital devices as programs. Designs simple algorithms using loops and selection *(e.g. 'if' statements).* Uses logical reasoning to predict outcomes. Detects and corrects errors **(debugging)** in algorithms. Uses mathematical operators, if statements and loops within programs. Uses logical reasoning to predict the behaviour of programs. Detects and corrects errors in programs **(debugging).** Understands how programs instruct the computer what to do.	Navigates the web and can carry out simple web searches to collect digital content. Demonstrates use of computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online.
Step 3	Collects, organises and presents data and information in digital content. Creates digital content to achieve a given goal through combining software packages to communicate with a wider audience. Makes appropriate improvements to solutions based on feedback received, and can comment on the success of the solution. Understands the difference between data and information. Knows why sorting data in a table can improve searching for information. Can use filters or single criteria searches for information. Knows that computers collect data from various input devices. Understands the difference between hardware and software and their roles within a computer system.	Designs algorithms that use repetition and two-way selection (e.g. 'if', 'then' and 'else'). Uses diagrams to express solutions. Uses logical reasoning to predict outputs, showing an awareness of the inputs. Create programs that implement algorithms to achieve given goals. Declares and assigns variables. Uses a 'loop' (e.g. 'until') and a sequence of selection statements in programs, including an 'if', 'then' and 'else' statement.	Understands the difference between the internet and the world wide web (a service that uses the internet). Shows an awareness of, and can use a range of internet services. Recognises what is acceptable and unacceptable behaviour when using technologies and online services.
Step 4	Makes judgements about digital content when evaluating it for a given audience. Recognises the audience when designing and creating digital content. Understands the potential of information technology for collaboration when computers are networked. Uses criteria to evaluate the quality of solutions, can identify improvements making some refinements to the solution, and future solutions. Understands why and when computers are used. Understands the main functions of the operating system. Knows the difference between physical, wireless and mobile networks. Performs more complex searches for information (e.g. 'AND', 'OR', 'NOT'). Analyses and evaluates data and information, and recognises that poor quality data leads to unreliable results, and inaccurate conclusions.	Shows and awareness of tasks best completed by humans or computers. Designs solutions by decomposing a problem and creates a sub-solution for each of these parts. Recognise that different solutions exist for the same problem. Understands the difference between and appropriately uses 'if', 'then' and 'else' statements. Uses a variable and relational operators (< = >) within a loop to govern termination. Designs, writes and debugs modular programs (program divided into sub parts) using procedures. Combine a group of instructions into a single named unit (procedural abstraction).	Understands how to effectively use search engines, and knows how search results are selected. Selects, combines and uses internet services. Demonstrates responsible use of technologies and online services, and knows a range of ways to report concerns.

* Based on CAS (Computing At School) *'Computing Progression Pathways'* document