

KPI	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Follow and give clear instructions (an algorithm) for a human to perform a task.	Debug algorithms for a screen robot/turtle so that the defined outcome is achieved	Write algorithms using a visual programming tool that achieve specific goals	Use sequence, selection and repetition to design and write a simple program using a visual programming language.	Control physical systems or simulations of these through a digital device.	Solve complex problems by decomposing into smaller parts
2	Give examples of algorithms in everyday life.	Predict the behaviour of simple programs, identifying where a screen robot/turtle will finish after a series of commands.	Debug a program created by a visual programming tool to achieve a given aim.	Use logical reasoning to predict the outcome of a program and changes to it.	Use various forms of input and output in programs.	Use sequencing, selection, loops and repetition in programs that involve multiple variables
3	Debug algorithms for a floor robot/turtle/programmable toy so that the defined outcome is achieved.	Control the movement of a screen turtle/robot using algorithms and can explain similarities and differences to programming toys/floor turtles/robots.	Solve simple problems by decomposing them into smaller parts.	Explain that computers can be connected using networks.	Use logical reasoning to debug programs containing sequence, selection, repetition and variables.	Debug programs containing selection, loops, repetition and variables.
4	Predict the behaviour of simple programs, identifying where a floor robot/turtle/programmable toy will finish after a series of commands.	Use technology purposefully to manipulate and combine different types of digital content.	Use search engines effectively to find specific information.	Draw a simple network map.	Explain what the world wide web and the internet are, and the difference.	Make generalisations by comparing programs in two different visual programming languages.
5	Say how algorithms are helpful for solving problems.	Use technology to store and retrieve digital content across a range of devices.	Use a range of digital tools to gather information/data.	Use advance internet search features to compare and evaluate search engine results.	Outline how data is transported in packets on the internet to different addresses.	Explain how search results are selected and ranked.
6	Control the movement of a floor robot/turtle/programmable toy using algorithms.	Can identify some ways that technology helps us to communicate with others.	Recognise when digital content or data is inaccurate or misleading.	Collect and sort information from a range of data sources.	Refine internet searches to improve relevance of materials.	Be discerning when evaluating information and digital content found online.
7	Use technology purposefully to create digital content, including text, graphics, sound, and video.	Can say why a wide range of technologies are used at school, home and beyond.	Present data and information to a wider audience using a range of digital tools.	Compare, analyse and evaluate digital content from two different sources.	Can justify their selection of an appropriate digital device and application to accomplish a specific outcome.	Justify their selection of content from different digital devices and applications to accomplish a specific goal.
8	Use technology to store and retrieve digital content.	Can identify key parts of a computer or a technology containing a 'computer' as input, output, memory, processor.	Use a range of technologies to communicate with others.	Use a range of technology to share digital resources including charts, articles and audio/visual presentations, with a selected audience.	Summarise and present information/data using a range of media.	Design a data collection project and analyses the results.
9	Say how different technologies that contain a computer are commonly used in school and at home.	Explain that information can be stored in different ways by computers.	Identify the features of a computer that enable communication with others.	Collaborate with others using digital tools.	Collaborate through online systems to work on shared documents.	Create and share mixed media presentations online for a specific audience.
10	Explain what personal information is and why it is kept private.	Communicate respectfully online.	Recognise acceptable/unacceptable online behaviour.	Identify a range of online risks.	Explain the importance of content ownership and copyright issues.	Communicate and collaborate through online systems using a variety of tools.
11	Say how to get help and support from adults about digital content that concerns them.	Explain how to alert adults to concerns about digital content or contact.	Talk about a range of ways to report concerns about content and contact.			Explain the importance of keeping their own data and that of others safe.