Progression of skills in Computing   St Paul's Catholic School

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	• To complete a simple program on a computer • To understand the importance of clear instructions to complete a task	• Understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. • Know that an algorithm written for a computer is called a program. • Can make logical attempts to fix the code. • Read code one line at a time. • Attempt to envision the bigger picture of the overall effect of the program.	• Explain that an algorithm is a set of instructions to complete a task. • Show awareness of the needs to be precise with their algorithms. • Create a simple program that achieves a specific purpose. • Identify the parts of a program that respond to specific events and initiate specific actions	• Turn a simple real-life situation into an algorithm • Design shows that they are thinking of the desired task and how this translates into code • Identify an error within their program that prevents it following the desired algorithm and then fix it • Understand how variables can be used to store information while a program is executing. • List a range of ways that	• Thinking about the required task and how to accomplish this in code using coding structures for selection and repetition • Make more intuitive attempts to debug their own programs • Understand 'if statements' and attempt to combine these with other coding structures including variables • Trace code and use step-through methods to identify errors in code • Recognise the main component parts of	• Attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. • Translate algorithms that include sequence, selection and repetition into code with increasing ease. • Think about code structure in terms of ability to debug and interpret the code later • Understand the value of computer networks but are also aware of the main dangers	• Tune a more complex programming task into an algorithm by identifying the important aspects of the task and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. • Use logical methods to identify the cause of bugs, demonstrating a systematic approach to

				the internet can be used to provide different methods of communication	hardware which allow computers to join and form a network	• Recognise what personal information is and can explain how this can be kept safe	try to identify a particular line of code causing a problem • Translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures including nesting structures with each other • Understand and explain in some depth the difference between the internet and

							• the World Wide Web • Know what a WAN and LAN are and can describe how they access the internet in school
Information Technology	• To select and use technology for particular purposes • To understand that technological devices can store information	• Sort, collate, edit and store simple digital content	• Demonstrate an ability to organise data and can retrieve specific data for conducting simple searches. • Edit more complex digital data. • Use a range of media in their digital content	• Carry out simple searches to retrieve digital content and understand that you need to connect to the internet to do this • Collect, analyse, evaluate and present data and information using a selection of software	• Understand the function, features and layout of a search engine • Appraise selected webpages for credibility and information at a basic level Able to make improvements to digital solutions based on feedback	• Search with greater complexity for digital content when using a search engine • Explain in some detail how credible a webpage is and the information it contains • Collaboratively create content and solutions using digital features within software	• Readily apply filters when searching for digital content • Explain how credible a webpage is and the information it contains • Compare a range of digital content sources and rate them in terms of content quality and accuracy • Make clear connections to the audience when

							designing and creating digital content
Digital Literacy	• Understand what is meant by technology and devices they might use • Talk about technological features in their own environment and how this might differ in other environments • Understand the importance of keeping information private.	• Understand what is meant by technology and can identify a variety of examples both in and out of school. • Can make a distinction between objects that use modern technology and those that do not. • Understand the importance of keeping information private.	• Effectively retrieve relevant, purposeful digital content using a search engine • Apply their learning of effective searching beyond the classroom. • Know the implications of inappropriate online searches.	• Demonstrate the importance of having a secure password and not sharing this with anyone else, and can explain the negative implications of failure to keep passwords safe. • Know more than one way to report unacceptable content and contact.	• Explore key concepts relating to online safety using concept mapping • Help others to understand the importance of online safety • Know a range of reporting inappropriate content and contact	• Have secure knowledge of common online safety rules • Implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others	• Demonstrate the safe and respectful use of a range of different technologies and online services • Identify more discreet inappropriate behaviour through developing critical thinking • Recognise the value in preserving their privacy when online for their own and others safety