Warton St. Paul's Primary Academy
Computing Progression of Skills
2022-2023

EYFS		Year 1	Year 2	Year 3/4	Year 5	Year 6
To explore the hardware and software available in class.	**Computer Science**	To understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand. To work out what is wrong with a simple algorithm when the steps are out of order. To know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code. To read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	To explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code. To create a simple program that achieves a specific purpose. They can also identify and correct some errors. To identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.	To be able to turn a real life situation into an algorithm using coding structures for selection and repetition. Children can attempt to debug their own programs. To use timers to achieve repetition effects in a logical and integrated way into programs they create. To develop an understanding of how to change variables and values to store information while a program is executing. To create programs that have a logical structure with achievable steps and taught coding structures. To recognise the main components of hardware which allow computers to form a network.	To be able to turn more complex real life situations into algorithms for a program by deconstructing it into manageable parts. To test and debug their own programs. To translate algorithms, that include sequence, selection and repetition into code with increasing ease. When coding, children can think about their code structure in terms of the ability to debug and interpret the code later. To understand the value of computer networks but are aware of the main dangers of them. To understand what personal information is and can explain how to keep this safe.	To turn a more complex program into an algorithm by identifying the important parts (abstraction) and then decomposing them in a logical way using coding structures and applying previously learnt skills. To test and debug programs as they go using logical methods to identify the cause of the bugs and using a systematic approach to identify the line of code that is causing a problem. To translate algorithms that include sequence, selection and repetition into code using their own designs by utilising such structures, including nesting within each other. To have an improving understanding of variables in coding, outputs such as sound

				To understand the online safety implications associated with using the internet.	To select the most appropriate form of online communications.	and movement, inputs from the users such as button clicks and the value of functions. To know what a WAN and LAN are and how they are used in school to access the internet.
To access age-appropriate apps and games.	**Information Technology**	To sort, collate, edit and store simple digital content.	To demonstrate an ability to organise data using, for example, a database.	To understand the function, features and layout of a search engine. To begin to question the credibility of web pages at a basic level. To make software choices when presenting information.	To search with greater complexity when using search engines and can explain with some detail how credible the webpage, where the information is stored, is. To collaboratively create content and solutions using digital features within appropriate software.	To apply filters when using a search engine. To explain in detail how credible a webpage is and the information that is retrieved from it. To compare various digital sources and rate them in terms of quality and accuracy. To make clear connections with the audience when presenting content.
To understand online safety, if something upsets them or goes wrong when they are using the internet they need to tell someone.	**Digital Literacy**	To understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not. To understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their	To effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge. To know the implications of inappropriate online searches. Children begin to understand how things are shared electronically.	To begin to help others to understand the importance of online safety. To be able to recall ways of reporting inappropriate content and contact.	To have a secure common knowledge of online safety rules and can apply these by demonstrating the safe and respectful use of different technologies. To relate appropriate online behaviour to their right to privacy and mental well-being of themselves and others.	To demonstrate safe and respectful use of a range of digital technologies and online services. To identify more discrete inappropriate behaviour and use. To recognise the value of preserving privacy when online for the safety of themselves and others.

		work and save this in their own private space.				