National Curriculum Aims

-Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation.

-Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.

-Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.

-Are responsible, competent, confident and creative users of information and communication technology.

National Curriculum Subject Content

-Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

-Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

-Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

-Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they off for communication and collaboration

-Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

-Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, valuating and presenting data and information.

-Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Information Technology

Laptop skills and Word Processing	Presentations, Web Design and eBook Creation	Video Creation	Data Handling
-Can use index fingers for key board home keys (f/j) and left hand for a/s/d/f/g and right hand for h/j/k/l -Can copy and paste images and text -Can add images alongside text in a word processes document. -Can edit the style and effect of text and images to make documents more engaging -Can cut, copy and paste to quickly duplicate and organise text.	-Can create an interactive book with sounds, formatted text and videos. -Can create a simple web page.	-Can sequence clips of mixed media in a timeline and record a voiceover -Can trim and cut films and add titles and transitions. -Can create a green screen video with more than one background	-Can create their own sorting diagram and complete a data handling activity with it using images and text -Can input simple data into a spreadsheet

Computer Science	
Computational Thinking and Coding/ Programming	Computer Networks
-Design and create programs that accomplish specific goals. -Use repetition in programs.	-Understand that computers in school are connect in a network and understand why. -Know the difference between the internet and the world wide web.

Digital Literacy				
Self Image and Identity	Online relationships	Managing online information	Health and Wellbeing	Privacy
-Can explain the term identity. -Can explain how they represent themselves in different ways online and why they may change this depending on what they are doing (gaming, using an avatar, social media)	-Know why people of similar interests can get together online. -Give examples of technology specific froms of communication (eg emojis, text speak) -Know the risks of communicating with someone they don't know well online. -Know how what they say and write online may hurt other people's feelings and how they may be hurt. -Know how to get help if they are upset by something online. -Explain why they should be careful who they trust online and know they can take that trust back. -Know the difference between knowing someone online and in real life. Know the difference between liking and trusting someone online. -Know they need to be careful when sharing information about themselves or other online. -Know who to ask if they are not sure what to post online.	-Can use key phrases in search engine. -Can discuss autocomplete and how to choose the best suggestion. -Know the internet can be used to sell and buy things	-Know why spending too much time using technology can have a negative impact and can give some examples of when it is easy to spend too much time engage (games, films, video)	-Give reasons why they should only share information with people they choose to and can trust. Explain that if they are not sure or feel pressured they should speak to an adult. -Understand why passwords are important and describe strategies for creating them and keeping them private.