	Information Technology	Computer Science	Digital Literacy
Year 1	Recognise digital content in different forms. Create, organise, store, edit and manipulate data in different digital formats (eg paint, digital photographs and video, G-suite and G drive.) Obtain content from the world wide web using a web browser. Basic mouse and keyboard skills	Know computers use 'machine code' and programmers use 'programming language'. Begin to understand algorithms and write their own simple instructions as symbols. Use algorithms to program Beebots. Begin to use logical reasoning to predict behaviour of a program with a given set of instructions. Work together to notice errors and correct mistakes (debugging). Unplugged activities - role playing instructions. Begin to know how the world wide web works and that we are connected via the Internet	Know some common uses of information technology in and outside school – where technology is used throughout their day. Understand the importance of communicating safely and respectfully online. Know what personal information is and that it should be kept private. Know what to do when worried about content or contact. Begin to understand the school's acceptable use policy.

Year 2	Recognise different types of data (eg number and text) Confidently create, organise, store data in a range of digital formats. Edit and manipulate digital content (eg editing photographs). Begin to combine different media. Know how to find digital content (eg. finding files on Google Drive/Google Classroom). Independently conduct simple web searches. Know that a range of digital devices can be considered a computer.	Understand what algorithms are. Know computers follow simple, precise instructions, and computers can only follow the instructions it understands. Create simple programs and express simple, linear algorithms as symbols. (Scratch Jnr) Use logical reasoning to predict what will happen with a set of instructions and why. Debug code with increasing independence.	Recognise the use of information technology in and outside school - where technology is used throughout their day. Demonstrate use of computers safely and responsibly. Know what personal information is and that it should be kept private. Know a range of ways to report unacceptable content and contact. Begin to understand the school's acceptable use policy and their responsibilities. Begin to know how to safely communicate with one another through email/online messages

Year 3	Know the difference between hardware and application software. Understand and explain the difference between data and information. Use devices, software and apps under direction of teacher. Confidently collects, organises and presents data and information in digital content. Create digital content to achieve a given goal. Combine digital content. Gain experience working with data generated by themselves. Know to use the right key words when using search engines. Distinguish between main and sponsored results.	Design and write algorithms using repetition (loops, repeat, repeat...until...) and selection (if, then, otherwise) Use logical reasoning to predict outputs. Independently identify and correct bugs in simple algorithms (trial and error). Know the difference between input and output and recognise the two. Understand the difference between the internet and internet services.	Recognise acceptable and unacceptable behaviour online. Know to keep passwords and personal information safe. Know their responsibilities according to the school's acceptable use policy. Know a range of ways to report concerns. Know how to safely communicate with one another through email/messaging

Year 4	Clearly explain the difference between data and information. Understand the main functions of the operating system. Know the difference between physical, wireless and mobile networks. (Look at examples, eg the internet, and how they provide multiple services) Know to use key words or phrases when using search engines. Know that search engines are 'web crawler programs'. Begin to know to scan the results to find appropriate information. Make judgements about digital content. Use devices, software and apps with increasing independence. Recognise the audience when creating digital content. Gain experience working with data generated by themselves. Know why and when computers are used.	Understand differences between and appropriately uses 'if' and if...then' statements. Use variable and relational operators within a loop to control 'endings' to programs Explain the thinking behind algorithms. Use logical reasoning to predict outputs. Independently identify and correct bugs in simple algorithms (trial and error). Know the difference between input and output and begin to use various inputs.	Demonstrate responsible use of technologies and online services and know a range of ways to report concerns. Begin to show awareness of their digital footprint. Know their responsibilities according to the school's acceptable use policy.

Year 5	Know and explain which tasks are best completed by human or computers. Begin to understand that computers use binary to represent all data. Know there is a range of operating systems and application software for the same hardware. Select devices, software and applications to achieve given goals. Use data generated by themselves and through public datasets. Analyse and evaluate data and information and recognise that poor quality data leads to unreliable results and inaccurate conclusions. Explore how trustworthy the information is and why the content was posted. Understand how search engines rank results.	Planned debugging of code rather than trial and error through decomposition of algorithm and recognising there may be more than one solution. Begin to spot patterns in algorithms and use these to solve problems. Understand that various algorithms exist for different functions. Experience of different inputs and outputs.	Explain why the school has an acceptable use policy. Consider how online actions affect others. Show awareness of their digital footprint. Begin to be aware of their legal and ethical responsibilities (eg intellectual property rights) Know web services have terms and conditions, including age restrictions. Know a range of ways to report their concerns.

Year 6	Know that computers use binary to represent all data. Know that computers transfer data in binary. Recognise the relationship between binary and file size. Independently select devices, software and apps based on the outcome. Justify the choice of, and combine digital devices and application software to achieve given goals. Use data generated by themselves and through public datasets. Use limiting searches when using search engines. Evaluate the search results to find appropriate information. Understand how search engines rank results and clearly evaluate these systems. Understand how to construct static web pages. Design and create web pages for a purpose. Use HTML. Understand data transmission between computers and networks.	Recognise that different algorithms exist for the same problem. Independently planned debugging of code. Rewrite and test own tests and sequences. Identify similarities and differences in situations and use these to solve problems (pattern recognition.) Use a scripting language	Evaluate the trustworthiness of digital content. Know how the use of technology can impact on society. Show awareness of their legal and ethical responsibilities (eg intellectual property rights) Know the importance of observing Terms and Conditions for web services (including age restrictions) Know a range of ways to report their concerns.

Digital Literacy and Online Safety

Self-image and identity

Online relationships

Health, well-being and lifestyle

Privacy and security

Managing online information

Online reputation

Online bullying

Copyright and ownership