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| Computing & Coding  |
| **Programme of Study**  | * design and write 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;
* generate **appropriate** inputs and predicted outputs to test programs
* use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
 |
| **Skills**  | 1. Can they begin to understand the need for logical reasoning to detect and correct errors in a program?
2. Can they recognise a variable in an algorithm or program and begin to understand why it is needed?
3. Can they recognise the uses of programming in the world around and its impact on society, including that of gaming?
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| **Key Works**  | **FOREVER ALGORITHM CONTROL INSTRUCTIONS LOGICAL REASONING****REPEAT SELECTION SEQUENCE MODEL****VARIABLES PROGRAM DECOMPOSITION SIMULATION****LOOP EXECUTE LOGICAL REASONING****FOREVER RUN COMPUTATIONAL THINKING** |

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| Digital Creation  |
| **Programme of Study**  | 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, design and create systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information |
| **Skills**  | 1. Can they understand the potential of multimedia to inform or persuade and know how to integrate text, images and sounds imaginatively for different audiences and purposes?
2. Can they acquire, store and combine images from different sources, then use to enhance a presentation?
3. Can they develop consistency across a presentation, using the same styles of font, colour, size for headings, body text, etc.?
4. Can they make effective use of transitions and animations in presentations?
5. Can they consider their appropriateness and overall effect on the audience?
6. Can they use online tools and services to create, edit and store digital media and presentations?
7. Through peer and self-assessment, can they routinely evaluate presentations and make improvements?
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| **Key Works**  | **Audience Edit****Purpose Sound Media licence Source Digital Web2** |

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| Working with Data  |
| **Programme of Study**  | 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, design and create systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information |
| **Skills**  | 1. Can they recognise the consequences of data not being accurate, relate to outside world (e.g. Police / doctors / banks / school database)?
2. Can they understand the need for data protection and some of the rights of individuals over stored data and how it affects use and storage of data in the real world?
3. Can they understand that spreadsheets can automate functions, making it easier to test variables? e.g. when planning a budget you can change the number of items and see the changes to total cost.
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| **Key Works**  | **DATA FILTER FIELD****INFORMATION GRAPH RELIABILITY****CELL INTERPRET ACCURACY****ANALYSIS COMPARE** **DATABASE RECORD ACCCURACY** |

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| E-Safety & E- Responsibility  |
| **Programme of Study**  | use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. |
| **Skills**  | 1. Can I find similarities and differences between in-person and cyberbullying and identify good strategies to deal with cyberbullying?
2. Can I identify secure websites by identifying privacy seals of approval?
3. Do I understand the benefits and pitfalls of online relationships and identify information that I should never share?
4. Can I identify how the media play a powerful role in shaping ideas about girls and boys?
5. Can I apply my online safety knowledge to my online activities?
6. Can I use my knowledge of online safety to create a multiple choice quiz?
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| **Key Works**  | **ESAFE****RESPONSIBILITY Permission****FILTERING Licence****SECURE Ownership****PASSWORD Sharing****PROTECTION Inappropriate** **CYBER-BULLYING****SOCIAL NETWORKING**  |

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| Networks Communication and Collaboration  |
| **Programme of Study**  | understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration  |
| **Skills**  |  1. Can they work collaboratively to produce a document or presentation using cloud based tools?
2. Can they recognise the advantages, disadvantages and consequences of face to face online communication and collaboration (SKYPE)?
3. Can they understand how a computer network works?
4. Can they understand the different aspects of the Internet and how it works?
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| **Key Works**  | **Email PACKET Blogs****Blogging HUB NETWORK****Collaboration ROUTER Wikis** **Contribution PROTOCOL****Forums Publish****Audience FACE to FACE****Communication Feedback** |

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| Finding & Using Information  |
| **Programme of Study**  | use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital contentunderstand computer networks including the internet; |
| **Skills**  | 1. Can they develop skills to question where web content might originate from and understand that this gives clues to its authenticity and reliability? E.g. by looking at web address, author, content, contact us sections, linked pages
2. Can they evaluate the usefulness of websites?
3. Can they use effective Internet research to help create a report or presentation that answers specific questions on a topic?
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| **Key Works**  | ResearchContentInformationSearch engineResultsRankingUnique Resource Locator (url) Validity |