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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 & Concepts** | 1. Can they begin to type logo commands to create, edit and refine more complex sequences of instructions for a variety of programmable devices?
2. Can they recognise that ‘repeat’ and ‘forever’ can be used to achieve efficient solutions to tasks?
3. Can they create an algorithm and code it effectively e.g. to tell simple story?
4. Can they sequence pre-written lines of programming into order?
5. Can they talk about algorithms planned by themselves and others and identify any problems and the expected outcome?
 |
| **Key Words**  | **ALGORITHM CONTROL INSTRUCTIONS RUN** **REPEAT SELECTION SEQUENCE DE-BUG****VARIABLES PROGRAM DECOMPOSITION****LOOP EXECUTE COMPUTATIONAL THINKING FOREVER**  |

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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 & Concepts** | 1. Can they use a range of devices to capture still and moving images for a purpose? These could include digital cameras, video cameras
2. Can they select and import graphics from digital cameras, and other sources e.g the Internet?
3. Can they select suitable text, sounds and graphics to import into own work?
4. Can they add simple titles, credits and special effects e.g. transitions?
5. Can they understand that planning evaluation and improvement are vital parts of the design process and that ICT allows changes to be made quickly and efficiently and demonstrate this through editing their work?
6. Can they use various tools in photo-manipulation software to edit/change an image e.g. applying different special effects?
7. Can they use various layouts, formatting, graphics and illustrations for different purposes or audiences?
8. Can they select and import sounds from other sources e.g. own recordings, sound effects and music?
9. Can they recognise how to edit and combine sounds for a purpose?
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| **Key Words**  | **Audience Edit Images Media Font Enhance Evaluate****Manipulate Sound Graphics Purpose Layout Modify** |

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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 & Concepts** | 1. Can I identify how a message can hurt someone’s feelings and how to respond to it?
2. Can I use a search engine safely and accurately?
3. Can I understand ‘online plagiarism’ and how to avoid it?
4. Can I create a safe online profile?
5. Can I explain how to be a responsible digital citizen?
6. Can I create an online superhero character?
 |
| **Key Works**  | **ESAFE****RESPONSIBILITY** **FILTERING****SECURE****PASSWORD****PROTECTION****CYBER-BULLYING****SOCIAL NETWORKING**  |

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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 & Concepts**  | 1. Can they generate and compare different charts and graphs to answer questions (using graphing software, database or spreadsheet) and understand that different graphs are used for different purposes?
2. Can they determine the data needed to answer a specific question; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate?
3. Can they use a pre-prepared spreadsheet to record data to answer questions, explore simple number patterns and produce graphs?
4. Can they generate and compare different charts and graphs (using graphing software, database or spreadsheets) and understand that different graphs are used for different purposes?
 |
| **Key Words**  | **DATA FILTER FIELD****INFORMATION GRAPH RELIABILITY****CELL INTERPRET ACCURACY****ANALYSIS COMPARE** **DATABASE RELATIONSHIP****RECORD ACCCURACY** |

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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 & Concepts** | 1. Can they understand how e-mails work, and create and send e-mails including using the ‘cc’ and ‘bcc’ fields?
2. Can they use e-mail to e-mail work completed in school to their teachers and peers?
3. Can they contribute/edit/refine contributions to a shared document and understand that all changes are visible?
4. Can they begin to understand what a network is and relate this to computer networks?
5. Can they recognise that the Internet is a network of connected computers and the world wide web is a vast collection of websites that are stored on these computers?
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| **Key Words**  | Email NetworkBlogging Data Centre Collaboration World Wide WebContribution AudienceCommunication Wikis Feedback PublishForums  |

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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 & Concepts** | 1. Can they recognise that the Internet contains fact fiction and opinion?
2. Can they use search tools on the computer to find files or programs?
3. Can they analyse search engine result lists by looking at the web address and site summaries for clues?
4. Can they use a search engine to search for relevant text and images on the Internet to import into a document?
 |
| **Key Words**  | ResearchContentInformationSearch engineResultsRankingUnique Resource Locator (url) Validity |