# YEAR 5

| SOFTWARE | SUMMARY | OBJECTIVES |
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| Purple Mash 2 Code | Children begin to work through the Gorilla category of 2 Code. | • Understand what algorithms are<br>• Understand that programs execute by following precise and unambiguous instructions |
| Scratch | Children plan their own simple computer game. They design characters and backgrounds, and create a working prototype, which they develop further based on feedback they receive. | **Rising Stars – 'We Are Game Developers'**<br>• Create original artwork and sound for a game<br>• Design and create a computer program for a computer game, which uses sequence, selection, repetition and variables<br>• Detect and correct errors in their computer game<br>• Use iterative development techniques (making and testing a series of small changes) to improve their game. |
| The Black Chamber | Children learn more about communicating information securely through an introduction to cryptography (the science of keeping communication and information secret). They investigate early methods of communicating over distances, learn about two early ciphers, and consider what makes a secure password. | **Rising Stars – 'We Are Cryptographers.'**<br>'Be familiar with semaphore and Morse code<br>• Understand the need for private information to be encrypted<br>• Encrypt and decrypt messages in simple ciphers<br>• Appreciate the need to use complex passwords and to keep them secure<br>• Have some understanding of how encryption works on the web. |
| Inkscape | Children use vector and turtle graphics to explore geometric art, taking inspiration from the work of Escher, Riley and traditional Islamic artists, as well as experimenting with complex 'fractal' landscapes. | **Rising Stars – 'We Are Artists.'**<br><br>• Develop an appreciation of the links between geometry and art |

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|  |  | <ul><li>Become familiar with the tools and techniques of a vector graphics package</li><li>Develop an understanding of turtle graphics</li><li>Experiment with the tools available, refining and developing their work as they apply their own criteria to evaluate it and receive feedback from their peers</li><li>Develop some awareness of computer-generated art, in particular fractal-based landscapes.</li></ul> |
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| Brackets | The children create a website explaining e-safety and responsible online behaviour. | **Rising Stars – 'We Are Web Developers.'**<ul><li>Develop their research skills to decide what information is appropriate</li><li>Understand some elements of how search engines select and rank results</li><li>Question the plausibility and quality of information</li><li>Develop and refine their ideas and text collaboratively</li><li>Develop their understanding of e-safety and responsible use of technology.</li></ul> |
| Purple Mash 2 Blog | The children create a media-rich blog, comment on blogs and respond to comments. | **Rising Stars – 'We Are Bloggers.'**<ul><li>Become familiar with blogs as a medium and a genre of writing</li><li>Create a sequence of blog posts on a theme</li><li>Incorporate additional media</li><li>Comment on the posts of others</li><li>Develop a critical, reflective view of a range of media, including text.</li></ul> |