

Scratch – developing games	Computing	Years 5 & 6, Term 1	Year B
Key vocabulary: algorithm, sprite, backdrop, sprite, blocks, events, sequence, gradients, fill, levels, repeat, commentary, consequence, action, penalty, test, debug			
Knowledge and skills: Independently select and use appropriate software for a task. (5b) Independently select, use and combine a variety of software to design and create content for a given audience. (5c) Understand the need to only select age appropriate content (5d) Design, input and test instructions to program a device. (5f) Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. (5g) Use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency. (5h) Use Year 5 computing vocabulary: output, input, flowchart, backdrop. (5i) Design and create a range of programs, systems and content for a given audience. (6d) Use technology respectfully and responsibly. (6f) Use filters in search technologies effectively and be discerning when evaluating digital content. (6h) Solve problems by decomposing them into smaller parts (6i) Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors to ensure a program's efficiency. (6l) Use Year 6 computing vocabulary: Kodu, when and do. (6m) <i>How to create a maze game. How to select and change a sprite in Scratch. How to program commands that control the movement of a sprite. How to program consequences for specific actions. That they should only select age appropriate content. To make a background to create a complex maze. Use tools to draw my own character. Test and debug a program after making changes. Add sound, movement and commentary to the Maze Game. Add sounds as a consequence of an action. Make two characters move in relation to each other. Test for errors and debug a code. Translate logical instructions into coding blocks.</i>			Possible activities: Children will design and program a character game. Children will design their own characters and backdrops. Children can add features or effects to enhance a game. Children can create their own code for a splat game. Children can test and debug their game.
Spiritual, Moral, Social and Cultural Education and Promotion of British Values: Spiritual: Explore creativity and imagination in the design and construction of digital products. Reflect on the amazing advances in ICT technology. Participate in group work to develop self-worth. Gain an understanding of how computers can perform better than humans with certain activities. Moral: Explore moral issues around the use of digital technology, for example, copyright and plagiarism. Social: Encourage appropriate social behaviours in the classroom including listening whilst others are talking and generally interacting as caring a community. Encourage good practice and respect in the use of social networking. Cultural: British Values: Understand that living under the rule of law protects individual citizens and is essential for their wellbeing and safety. Understand that the freedom to choose and hold other faiths and beliefs is protected in law; that other people having different faiths or beliefs to oneself (or having none) should be accepted and tolerated, and should not be the cause of prejudicial or discriminatory behaviour, including online; and an understanding of the importance of identifying and combatting discrimination. Equality and Diversity : Think about how ICT allows all people to access the web. Using the internet will allow learning about other cultures and different countries. Consider the impact on children who do not have access to the internet or a laptop. Children will consider how gaming is different around the world.			