



algorithm



background



bug



code



debug



program



Computing: We are Game Designers



iterative
development



logical
reasoning



Scratch



Sprite 1 Sprite 2

sprite



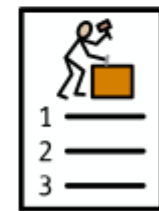
animation



bitmap

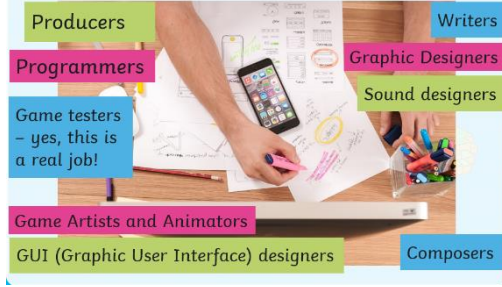



graphics



techniques

Y5 Computing: We are Game Developers – Topic Vocabulary Mat

Subject Specific Vocabulary		Relevant Pictures	Exciting Books/Websites
Algorithm	a sequence of precise instructions or steps (sometimes a set of rules) to achieve an objective		https://scratch.mit.edu/ https://www.coderkids.com/blog/top-10-free-coding-programs-for-kids
background	scenery and other unchanging elements in a game		
bug	an error or mistake in a program or algorithm, causing the computer or robot to behave in a manner that was not originally intended		
code	instructions (or sometimes rules) that can be understood by a computer		What I've learnt already.
debug	correct mistakes in a computer program or algorithm	<p>Y3:</p> <ul style="list-style-type: none">There are different programming languages, and Scratch is a block-based language in which sequencing blocks creates a program. <p>Y2:</p> <ul style="list-style-type: none">An algorithm is a sequence of instructions to complete a task. Sets of directions or movements are an example of an algorithm.Sprites are on-screen characters that can be given their own sequence of instructions to produce outputs.	Key Knowledge <ul style="list-style-type: none">Bitmap graphics are images where each dot (pixel) is specified, whereas vector graphics are images made of lines and curves.Game 'assets' are the sound and images for the game, such as backgrounds, costumes, music and sound effects.Music blocks in Scratch can be used with the extension tool.Creating multiple costumes for a sprite and switching between them, allows for realistic animation.'Point towards mouse' and 'when key pressed' blocks can be used with a repeat to allow control of the player's sprite with the mouse or keyboard.Progress or building challenge, like scores, levels, lives or countdown timers. In Scratch, 'variables' can be used to achieve this.'if/then/else' and 'sensing' blocks (like 'touching') can be used to allow the player's sprite to interact with other elements in a game.All games have rules, and games usually have a way of tracking progress or building challenge, like scores, levels, lives or countdown timers. In Scratch, 'variables' can be used to achieve this.There are different techniques that can be used to detect and correct errors in code, such as explaining what the code does, isolating the bit of code that is causing a problem, changing variables or rewriting code. It is important to be logical and to persevere.
program	an automated solution to a problem		
iterative development	a trial and improvement approach in which each successive version builds on the previous one by the fixing of mistakes or the adding of features		
Logical reasoning	a systematic approach to solving problems or deducing information using a set of universally applicable and totally reliable rules		
scratch	Simple, block-based programming language in which programs for characters are built by snapping together code blocks.		
sprite	A graphical character in a program that can be given its own sequence of instructions		