| Year / Topic

5.4   Game Development | Term

Spring 2 | National Curriculum Links

CS2.1, CS2.3, IT2.1 | Length of Topic

5 Weeks |
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	Key Classroom ICT Activity
Resources Kodu Storyboard	In this unit students will create original artwork and sound for a game. They will design and create a computer game which uses sequence, selection, repetition and variables. Detecting and correcting errors in their game and using iterative development techniques to improve their game.
Target Skills Computer game design Programming skills Basic animation using a drag and drop interface.	By the end of the topic students will be able to: • Design and create a computer program for a computer game, which uses sequence, selection and variables. • Detect and correct errors in their computer game. • Use iterative development techniques (making and testing a series of small changes) to improve their game.
Curriculum Links D&T – *Designing game.* Art – *Creating backgrounds and characters.* Maths – *Problem Solving* English – *Speaking and Listening.*	**Assessment - Progression Pathways** All children should – *IT, Recognise that digital content can be represented in many forms. Distinguishes between some of these forms. Talks about their work and makes changes to improve it.* *CS, Understand what an algorithm is and is able to express simple linear algorithms symbolically. Understands that computers have no intelligence and that computers can do nothing unless a program is executed. Knows that users can develop their own programs and can demonstrate by creating a simple program.*
E-Safety Coverage Consider copyright when sourcing images or media for their games. Searching for content for content for their games developing safe search habits. They might also consider some personal implications of playing games, perhaps including violent computer games.	*IT, Recognises different types of data: text, number. Appreciates that programs can work with different types of data and that data can be structured in tables to make it useful.* *CS, Understands that algorithms are implemented on digital devices as programs. Designs simple algorithms such as loops. Uses arithmetic operators, if statements, and loops within programs,* Most children should – *IT, Understands the difference between data and information. Shows an awareness of, and can use a range of internet services.* Some children should - *IT, Recognises the audience when designing and creating digital content Understands the difference between, and appropriately uses if and if then else statements.*

Assessment Criteria	5.4 Game Development
Emerging	✓ I can create a story board or diagram for an algorithm for my game. ✓ I can create sound and graphics in Kodu for my game.
Developing	✓ I can put instructions in the right order for my game. ✓ I can listen to my partner's ideas about my game and make it better. ✓ I can explain how my game works. ✓ I can add comments to the script of my game.
Secure	✓ I can create and add music for my game. ✓ I can use selection and repetition in my game. ✓ I can find mistakes in my game. ✓ I can add instructions to my game.
Mastered	✓ I can correct mistakes in my game. ✓ I can break my game into smaller parts and work on them separately.