



St John Fisher RC Primary School

Year Six Knowledge Organiser – Summer One – Computing – Programming

What we will be learning	Key Facts to Remember	
<p>Weeks 1 - 4</p> <p>I know:</p> <ul style="list-style-type: none"> • How to use basic principles of game design using Scratch. • How to design a game concept based on Mayan mythology. • How to develop algorithms for game mechanics. • How to code the game in Scratch based on the design and algorithms. • How to test and debug the game. • how to evaluate and present the games. 	<ul style="list-style-type: none"> • I can understand the basic principles of game design, focusing on structure and narrative, specifically in relation to Mayan mythology. • I can develop a clear game concept with defined objectives and story elements. • I can create algorithms that outline game mechanics and logic necessary for game execution. • I can use Scratch to implement my game design through programming sprites, events, and user interactions. • I can test my games effectively, identify bugs, and apply debugging strategies to solve issues. • I can present my final game projects, demonstrating my understanding of coding and design process. 	
Key Vocabulary and Glossary		Interesting Facts
<ul style="list-style-type: none"> • Algorithm - A set of instructions to solve a problem or complete a task. • Bug - An error in a programme that causes it to behave unexpectedly. • Code - The written instructions for a computer to follow in a programming language. • Debugging - The process of finding and fixing errors in code. • Game Mechanics - The rules and systems that define how a game operates. • Sprite - A two-dimensional image or animation that is integrated into a larger scene in a game. • Loop - A sequence of instructions that repeats either a specified number of times or until a certain condition is met. • Variable - A symbol or name that represents a value that can change. • Event - An action or occurrence recognized by the program, often used to trigger responses. • User Interface (UI) - The means by which a player interacts with a game, often including buttons and controls. • Prototype - An early sample or model of a game, used to test concepts before final development. 		<ul style="list-style-type: none"> • The ancient Maya civilization was known for its advanced knowledge in mathematics and astronomy, which influenced their mythology and storytelling. • Mayan mythology is filled with exciting characters like gods and goddesses, including Quetzalcoatl, who is famed for creating humanity. • Scratch was developed at MIT Media Lab to help young people learn coding in a visual and engaging way. • One of the most popular games created with Scratch reached over a million views, showcasing the potential for creativity and sharing within the platform.

Theme

Apps & Software



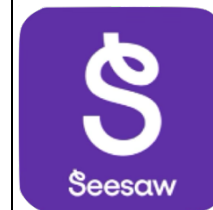
Maya Mythology

Maya mythology encompasses the creation stories, deities, and hero tales that formed the foundation of Maya culture. It includes narratives about the creation of the world and humanity, often emphasizing the role of maize and divine beings like the Hero Twins, Hunahpu and Xbalanque. These myths also delve into the underworld, Xibalba, and the cycles of life and death.



Scratch

Scratch is a visual programming language where users, primarily can create interactive stories, games, and animations. It uses a drag-and-drop interface, making coding accessible and intuitive for beginners.



SeeSaw

An educational platform that can be used to create an electronic portfolio of children's completed digital work.