



St John Fisher RC Primary School

Year Five Knowledge Organiser – Spring 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">• The basics of Scratch and game mechanics.• How to design a platform game.• How to develop algorithms for the game.• How to code the game in Scratch using the algorithm.• How to test and debug the game.• How to evaluate the game development process and outcomes.	<ul style="list-style-type: none">• I can explain the basics of Scratch and how to navigate its interface.• I can describe essential game mechanics and design principles for platform games.• I can write and represent algorithms relevant to my game design.• I can code a simple platform game using Scratch, incorporating sprites, backgrounds, and controls.• I can test my game and systematically debug any issues that arise.• I can evaluate my game development process.				
	<h3>Key Vocabulary and Glossary</h3> <ul style="list-style-type: none">• Scratch - A visual programming language that allows users to create interactive stories, games, and animations.• Algorithm - A step-by-step procedure or formula for solving a problem or completing a task.• Code - Instructions written in a programming language that a computer can understand and execute.• Sprite - A two-dimensional image or animation that is integrated into a larger scene, often used in games.• Debugging - The process of finding and fixing errors or bugs in code.• Variable - A storage location that can hold different values in a program and can change during execution.• Loop - A programming structure that repeats a sequence of instructions until a specified condition is met.• Event - An action or occurrence recognized by a program, often used to trigger a response (e.g., clicking a button).• Condition - A statement that determines whether something is true or false, often used in decision-making within code.• User Interface - The visual elements through which a user interacts with a programme or game, including menus, buttons, and icons.				
	<h3>Interesting Facts</h3> <ul style="list-style-type: none">• Scratch was developed by the MIT Media Lab and launched in 2003.• There are millions of projects created on Scratch, fostering a large online community for sharing and collaboration.• The concept of algorithms is not just limited to programming; they are also used in everyday activities like cooking and planning.• Many popular video games today are built on complex algorithms that govern their behaviour.• Debugging can often take more time than writing code itself, highlighting its importance in programming.				
Theme	Apps & Software				
	<p><u>Victorian Era – Street Child by Berlie Doherty</u></p> <p>Loosely based on a true story, Street Child is the inspirational tale of a poor Victorian boy fighting for survival on the grim streets of Victorian London. The novel is full of suspense and is a gripping read that will captivate pupils and teachers alike. Can we create a platform game for a character to collect food around the workhouse?</p>		<p><u>Scratch</u></p> <p>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.</p>		<p><u>SeeSaw</u></p> <p>An educational platform that can be used to create an electronic portfolio of children's completed digital work.</p>